## SYLLOGE

# FINGSORINA

### OMNIUM HUCUSQUE COGNITORUM

DIGESSIT

P. A. SACCARDO

VOL. XXII.

Sectio II.

#### SUPPLEMENTÚM I DAVERSALE

Pars IX. - Sect. II. Pag. 823 ad finem

Deuteromy sets

(editæ usque ad finem anni MCMX)

AUCTORIBUS

P. A. SACCARDO ET ALEX. TROTTER

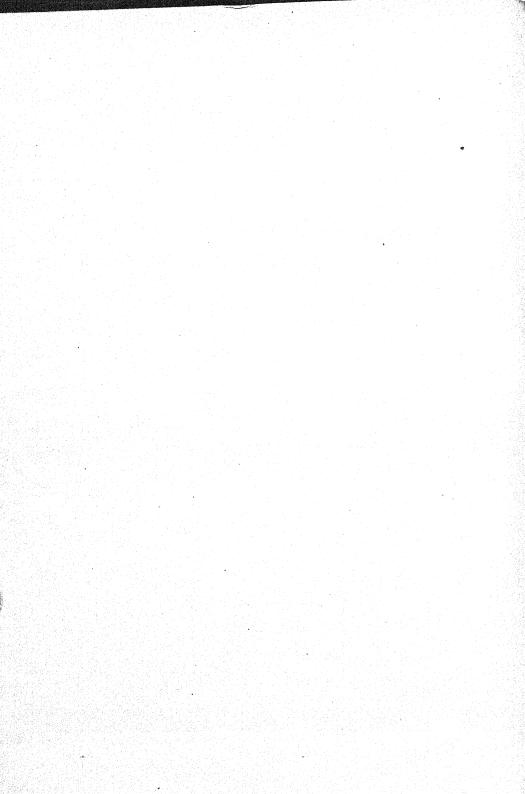
Neminem latet, Syllogen nostram diagnoseon collectionem ordinatam, non vero [nisi in observatis propriis] opus criticum sistere. Hoc faciant monographi et floriste et benevole meminerint, quid vere sit Sylloge nostra, ne nobis tribuant errores, qui nostri non sunt.

Syll. Fung. V (1887) in præmonitu.

PATAVII

Die XX Augusti MCMXIII — Sumptibus P. A. SACCARDO
TYPIS SEMINARII

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#### DEUTEROMYCETÆ Sacc.

SPHÆROPSIDACEÆ Lév. em. Sacc.

Syll. III p. 1, X p. 100, XI p. 472, XIV p. 814, XVI p. 825, XVIII p. 219.

Fam. 1. Sphærioidaceæ em. Sacc.

Sect. 1. Hyalosporæ.

PHYLLOSTICTA Pers. — Syll. III p. 3, X p. 100, XI p. 472, XIV p. 844 et 1137, XVI p. 825 et 1154, XVIII p. 220.

1. Phyllosticta leucosticta C. Mass., Osserv. fitol. in Madonna Ve-6102 rona v. II (1908), Extr. p. 11. — Maculis minutis, angulosis, internerviis, dein candidis; pycnidiis nigris, punctiformibus epiphyllis; sporulis hyalinis sæpe guttulatis, ovoideis, 5-7 × 3-3,5.

Hab. in foliis languidis Thalictri aquilegifolii, Calavena
Verona, Italia bor. — Ab affini Ph. Thalictri West. colore ma-

cularum et magnitudine sporarum differt.

2. Phyllosticta Trochodendri Alm. et Cam., Bol. Soc. Broter. XXV 6103 (1908-1909), Extr. p. 28. — Maculis amplis, cinereis, castaneo-limitatis, subinde fere totum folium occupantibus; pycnidiis epiphyllis, sparsis, primo epidermide tectis, dein erumpentibus, depressis, ostiolo vix papillato, 300-400 μ. diam.; sporulis ellipsoideis, utrinque rotundatis v. deorsum attenuatis, biguttulatis, continuis, hyalinis, 7-8 × 2,5-3; sporophoris cylindraceis, hyalinis, usque ad 20 μ. long.

Hab. in foliis Trochodendri aralioidis in horto botanico

Coimbra, Lusitania (A. MOLLER).

3. Phyllosticta Armoraciæ (Cooke) Sacc. III, p. 519 et XX, p. 381, 6104 Cooke Fung. Pests p. 84, t. VII, f. 103, Ascochyta Armoraciæ Cooke F. B. n. 32. — Maculis anguloso-orbicularibus, sordide albis, anguste marginatis; pycnidiis punctiformibus, gregariis; sporulis minutis, oblongis, hyalinis, 6 \* 3-4, copiosissimis.

Hab. in foliis Armoraciæ rusticanæ in Britannia, sociis

Ascochyta et Ramularia.

4. Phyllosticta Dentariæ Kab. et Bub., Myc. Beitr., Hedwigia Bd. 6105 XLVII (1907) p. 288. — Maculis amphigenis, primum viridibus dein pallide brunneis et arescentibus, irregularibus, sæpe latis quandoque indistinctis; pycnidiis hypophyllis, immersis, sparsis v. sæpe gregariis, globosis, subdepressis, brunneis, 120-165 μ. lat., poro apicali parvo rotundo præditis, contextu parenchymatico; sporulis bacillaribus, 3-5 × 1,5-2, utrinque rotundatis, rectis v. curvulis, unilocularibus, hyalinis, biguttulatis; sporophoris papilliformibus, supra in pedicellum brevem angustatis.

Hab. in foliis emortuis Dentariæ enneaphyllos prope

Turnau Bohemia (KABAT).

5. Phyllosticta alpina Allesch. — Syll. XIV, p. 846 — var. helvetica 6106 Jaap, Beitr. Pilzfl. d. Schw., Ann. Myc. v. V (1907) p. 265. — A typo differt maculis distinctis, magnis, rotundatis v. elongatis; sporulis minoribus 5-7,5 × 2.

Hab. in foliis vivis Arabis alpinæ, Aufstieg Helvetia.

6. Phyllosticta capparidicola Speg., Mycet. Arg. V, p. 331, in Ann. 6107 Mus. Buenos Aires XX (1910). — Maculis epiphyllis angulato-difformibus, determinatis albido-cinerescentibus, 1-3 mm. diam.; pycnidiis laxe gregariis, atris, minute ostiolato-pertusis, 75-100 μ. diam., epidermide velatis, lenticularibus; sporulis anguste subnavicularibus sæpeque curvulis, 6-8 × 2, hyalinis.

Hab. ad folia viva Capparidis salicifoliæ in silvis prope

Ledesma Jujuy, Argentina.

7. Phyllosticta? Capparidearum Speg., Mycet. Argent. V, p. 331, in 6108 Ann. Mus. Buenos Aires XX (1910). — Maculis nullis; pycnidis epiphyllis, hinc inde laxe gregariis, 50-80 μ. diam., epidermide atrata tectis et concretis, atris, minute ostiolato-pertusis, contextu indistincte parenchymatico fuligineo; sporulis ex elliptico globosis, 5-6 ≈ 4, hyalinis.

Hab. ad folia Capparidis salicifoliæ in silvis prope Le-

desma Jujuy, Argentina. — Habitus quasi Leptostromatis.

8. Phyllosticta negundicola Sacc. in Ann. Mycol. VII (1909) p. 433. 6109 — Maculis ochraceis, minutis, subangulosis, amphigenis, demum in epiphyllo centro dealbatis; pycnidiis paucis epiphyllis, punctiformibus, 60 μ. diam., centro pertusis; sporulis ellipsoideis, 4,5–5,5 ≥ 2,8-3, hyalinis, sæpe 1-nucleatis.

Hab, in foliis Aceris Negundinis in Gallia (P. HARIOT).

9. Phyllosticta perniciosa Kabát et Bubák, Hedwigia, XLIV (1905) 6110 p. 350. — Maculis epiphyllis, utrinque visibilibus, magnis, indefinitis, e pallido brunneis, dein hinc inde arescendo griseis, mox disrumpentibus; pycnidiis epiphyllis, gregariis, immersis, utrinque conspicuis, globoso-depressis, apice poro minuto papilliformi erumpentibus, 50-170 μ. diam., e succineo rubro-brunneis, contextu tenui parenchymatico flavo-brunneo; sporulis ex ellipsoideo oblongis 4-10 × 2-4, rectis vel curvulis, utrinque rotundatis, hyalinis, unilocularibus; sporophoris brevibus, hyalinis.

Hab. in foliis vivis Aceris Pseudoplatani prope Turnau Bohemia (Kabat). — A Fh. Pseudoplatani diversa.

10. Phyllosticta Cocculi Speg., Myc. Arg. V, p. 332, in An. Mus. 6111 Buenos Aires, XX (1910). — Maculis nullis; pycnidiis hypophyllis hinc inde coacervatis, coriacellis, anguste rotundo-ostiolatis, 80-100 μ. diam., contextu subopaco, parenchymatico, fuligineo; sporulis ellipsoideis v. obovatis, minute biguttulatis, hyalinis, 4-6 × 2-3, rectis v. leniter curvulis.

Hab. ad folia emortua adhuc pendula Cocculi laurifolii in hortis La Plata, Argentina.

11. Phyllosticta Cherimoliæ Alm. et Cam., Bolet. Soc. Brot. XXV 6112 (1908-1909), Extr. pag. 25, Phyllost. Anonce Alm. et Cam. (non P. Henn.) Rev. Agronom. IV, 83, tab. I, fig. 6-7. — Maculis inter nervulos dispositis, elongato-rotundatis, contiguis, arescendo griseo-ochraceis, castaneo-cinctis; pycnidiis sparsis vel gregariis, epiphyllis, subglobosis, minutis, 120-150 μ. diam., atris; sporulis subovoideis, hyalinis, grosse biguttulatis, 7-10 × 2,5-3.

Hab. in foliis Anonæ Cherimoliæ in horto bot. Coimbra Lusitania (A. Moller). — A Phoma helvola B. et C. differt tantum sporulis majoribus.

12. Phyllosticta Kobus P. Henn., Engl. Jahrb. XXXVII (1905) p. 162. 6118

— Maculis irregularibus, gregarie sparsis, fuscidulis; pycnidiis gregariis epiphyllis, innato-erumpentibus, hemisphæricis, atro-nitentibus, 80-100 μ.; sporulis ellipsoideis v. ovoideis, utrinque rotundatis, intus punctulatis, hyalinis, continuis, 9-12 × 6-8.

Hab. in foliis Magnoliæ Kobus, Omiya Japoniæ (NAMBU).

13. Phyllosticta Winteri Speg., Fungi Fueg. n. 375 — Syll. X, p. 101. 6114
— Huc ducenda est verisimiliter ut synonymon vel ut varietas
Phyll. Drymidis Speg. — Syll. XVI, p. 827 — teste ipso auctore.

14. Phyllosticta Malkoffii Bubák, Ann. Myc. VI (1908) pag. 24. — 6115 Maculis crebris amphigenis, sæpe totum folium obtegentibus, brunneis, medio e flavo ochraceis, sordide albis, brunneo-marginatis, rotundatis v. polygoniis, 2-4 mm, latis, sæpe confluentibus; pycnidiis epiphyllis subepidermicis demum liberis, globosis v. applanatis, 65-120 µ. latis, apice ostiolo conoideo depresso apertis, e brunneo nigricantibus, grosse parenchymaticis; sporulis ex ellipsoideo breviter cylindraceis, sæpe irregulariter incurvatis et subreniformibus, 5-9 × 2-4, hyalinis, sæpe parum distincte biguttulatis.

Hab. in foliis Gossypii herbacei culti, Sadovo, Bulgaria.

- A Ph. gossypina sporulis videtur diversa.

15. Phyllosticta santiaguina Speg., Fungi Chilenses (1910) p. 139. 6116 — Maculis amphigenis, linearibus, sanguineis, subindeterminatis, 2-10 mm. long., 1-3 mm. lat.; pycnidiis innato-erumpentibus, globosis, 40-50 μ. diam., lineariter dispositis, tenuissime membranaceis, fusculis; sporulis cylindraceis pusillis, hyalinis, 4-5 × 1.

Hab. in foliis vivis Cumingiæ campanulatæ in collibus

Salto prope Santiago Chile Amer. austr.

16. Phyllosticta Lentisci (Pass.) Allesch. Phoma Lentisci Pass. — Syll. 6117 X, p. 149 — var. maculicola Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) p. 404. — A typo dignoscitur maculis cinereis, inequaliter rotundatis, 3-4 mm. diam.; pycnidiis hypophyllis, epidermide tectis, 150-250 μ. diam., papilla nigra 20 μ. lata erumpentibus.

Hab. in foliis vivis Pistaciæ Lentisci, Montenegro.

17. Phyllosticta Odinæ P. Henn. et Evans, Engl. Bot. Jahrb. XLI 6118 (1908) p. 273. — Maculis rotundatis vel effusis, fuscis; pycnidiis epiphyllis gregariis, erumpentibus globulosis, atris, pertusis, 50-60 μ.; sporulis ellipsoideis, hyalinis, 2 × 1,5.

Hab. in foliis Odinæ discoloris, Waterbey Transvaal, A-

frica austr. (Evans).

18. Phyllosticta coriariicola Speg., Fungi Chilenses (1910) p. 138. — 6119 Maculis amphigenis fusco-pallescentibus, numerosis, sæpius confluentibus, plus minusve angulosis, determinatis, areola angusta sordide purpurascenti cinctis; pycnidiis sæpius epiphyllis innato-erumpentibus, pusillis, ostiolatis, lenticularibus, 75-80 p. diam., tenuissime membranaceis, olivaceis; sporulis cylindraceis v. subbotuliformibus, rectis v. curvulis, 5-6 × 1, utrinque rotundatis, sporophoris quintuplo longioribus fultis.

Hab. in foliis vivis Coriariæ ruscifoliæ, Cerro Caracol

de Concepcion Chile Amer. austr.

19. Phyllosticta Erodii Speg., Myc. Argent. V, p. 334, in An. Mus. 6120 Buenos Aires XX (1910). — Maculis amphigenis suborbicularibus,

subdeterminatis, late purpureo-areolatis, 3-5 mm. diam.; pycnidiis epiphyllis, lenticularibus, epidermide velatis, 75-90  $\mu$ . diam., ostiolo impresso, 20  $\mu$ . diam. pertusis, tenui-membranaceis, contextu olivaceo subindistincto; sporulis rectis v. subinæquilateris, utrinque rotundatis, 6-8  $\times$  3, hyalinis.

Hab. in foliis vivis Erodii malachoidis pr. Marmol Argentinæ.

20. Phyllosticta Ampelopsidis Ell. et Mart Journ. of Mycol. II (1886) 6121 p. 14, Halst N. Jers. Agric. Coll. Exper. Stat. Rep. Bot. Depart. (1896) p. 411. — Maculis læte brunneis, mox diffractis, 2-5 mm. diam., anguste saturatius marginatis; pycnidiis epiphyllis, atrobrunneis, sparsis, plerumque circinantibus, 100-150 μ. diam.; sporulis hyalinis, ovoideis, utrinque obtusis, 9 × 6, in massulas albas eructatis.

Hab. in foliis Ampelopsidis quinquefoliæ, Pennsylvania et New Jersey. — A Phyll. Allescheri differt imprimis sporulis multo majoribus.

21. Phyllosticta Badhami Cooke, Journ. R. Hort. Soc. (1878) p. 93 et 6122 Fung. Pests pag. 152, t. 13, f. 1. — Maculis marginalibus, indeterminatis, brunnescentibus, elongatis; pycnidiis laxe gregariis, lenticularibus, poro pertusis; sporulis hyalinis, ellipsoideis v. oblongo-ellipsoideis, 6-7 × 2.

Hab. in foliis Vitis viniferæ in Britannia.

- 22. Phyllosticta Vulpinæ Allesch., Deut. Krypt. Fl. Pilze VI, p. 98. 6123
   Ita vocanda est Phyllosticta viticola Thümen Syll. III, p. 20
   non Phyll. viticola Sacc. Syll. III, p. 19.
- 23. Phyllosticta Pteleæ Hollós, Ann. Mus. Nat. Hungar. VII (1909) 6124 p. 52. Maculis magnis, irregularibus, utrinque visibilibus, supra atro-brunneis, infra griseo-brunneis, non marginatis, confluentibus, medio pallescentibus; pycnidiis epiphyllis, sparsis, depressoglobosis, poro pertusis, brunneis, 180-210 μ. diam., contextu celluloso; sporulis oblongo-ellipsoideis, continuis, eguttulatis, hyalinis, 8-10 × 3-3,5.

Hab. in foliis vivis Pteleæ trifoliatæ, prope Nagy-Körös Hungariæ.

24. Phyllosticta Dictamni Fairm., Ann. Mycol. VIII (1910) p. 324. — 6125 Maculis primo suborbicularibus, dein subconfluentibus et irregularibus, brunneis, rarius albidis; pycnidiis gregariis v. sparsis, ostiolo c. 100-150 μ. lat. præditis, atris; sporulis ellipsoideis, utrinque rotundatis, continuis, hyalinis, 7-10 × 3-3,5; sporophoris?

Hab. in foliis vivis Dictamni Fraxinellæ, Lyndonville N. Y. Amer. bor.

25. Phyllosticta picroxylina Speg., Myc. Argent. V, p. 337, in An. 6126 Mus. Buenos Aires, XX (1910). — Maculis fuscescentibus, diffusis, vagis, sæpe majorem folii partem occupantibus; pycnidiis innato-erumpentibus, astomis, membranaceis, atris, 50-75 μ. diam., contextu minute parenchymatico, olivaceo; sporulis cylindraceis utrinque rotundatis, 3-4 × 1, rectis curvulisve, hyalinis.

Hab. ad folia viva Simaru baceæ cujusdam, vulgo Palo amargo

nuncupatæ, Puerto Leon, Misiones Argentina.

26. Phyllosticta agnostoica Speg., Fungi Paulist., Rev. Mus. La Plata 6127 t. XV (1908) p. 32. — Maculis non v. parce repandulis 2-5 mm. diam., ad hypophyllum ferrugineis, ambitu obscurioribus, ad epiphyllum plus minusve sordide cinerescentibus, nitidulis, ambitu zona stricta testacea eximie limitatis; pycnidiis centro macularum 1-5 laxe aggregatis, primo tectis dein erumpentibus, lenticularibus, 80-100 μ. diam., astomis?, coriacellis, contextu indistincto opaco fusco-atro; sporulis sæpius rectis, utrinque subacutiusculis, 5-6 × 1,5-2, hyalinis, biguttulatis.

Hab. ad folia viva Cedrelæ? cujusdam prope Cambucy Ipiranga, Brasilia (USTERI).

27. Phyllosticta pertundens Sacc., Ann. mycol. VIII (1910) p. 338. — 6128 Maculis subcircularibus, amphigenis, ex alutaceo pallentibus, non v. vix discolori-marginatis, areolis mycelii ope mox contractis, dilabentibus et foramina subcircularia copiosissima relinquentibus; pycnidiis epiphyllis, sparsis, globoso-depressis demum emergentibus, nigris, glabris, poro exiguo vix pertusis, 80-100 μ. diam., contextu distincte celluloso, atro-fuligineo; sporulis ellipsoideis, utrinque rotundatis, 3-4 × 2-2,5, crasse 2-guttatis, hyalinis.

Hab. in foliis languidis Trichiliæ emeticæ, Ghinda-Baresa, alt. 830 m. (Hamasen), Africa (Hadr. Fiori). — Folia, areolis dilapsis, demum tota pertusa fiunt, ut evenit ex aliis mycetibus perforantibus (Cercosporæ et Phyllostictæ sp.) qui tamen satis distincti sunt a specie præsente.

28. Phyllosticta Azevinhi Torrend, Broteria, Ser. Bot. VIII (1909) 6129 p. 142. — Maculis plerumque terminalibus (apicalibus v. lateralibus), amphigenis, 4-5 mm. longis, vinoso-brunneis; pycnidiis epiphyllis, gregariis, nigris, primo tectis, deinde expositis, 100-200 p.; sporulis ellipsoideis v. oblongis, hyalinis, protoplasmate æqualiter repletis, majoribus, 8-10 × 4-5.

Hab. ad folia Ilicis Azevinhi, Ribeira de Machico in ins. Madeira (C. de Menezes). — A Phyll. Ilicis Oud. sporulis majoribus et maculis amphigenis bene distincta.

29. Phyllosticta Corynocarpi Alm. et Cam., Bol. Soc. Broteriana, XXV 6180 (1908-1909), Extr. p. 26. — Pycnidiis plerumque epiphyllis, sparsis v. sæpe gregariis, in maculis aridis dispersis v. confluentibus, indeterminatis, præcipue apud nervum medianum dispositis, primo epidermide tectis, demum erumpentibus, subglobosis, 180-230 μ. diam.; sporulis ellipsoideis v. subclaviformibus, utrinque rotundatis, continuis, plasmate nubiloso, hyalinis, minoribus interdum biguttatis, 15-25 × 6-7; sporophoris cylindraceis vel claviformibus, hyalinis, usque ad 30 μ. long.

Hab in foliis emortuis Corynocarpi levigati in horto bot. Coimbra Lusitania (A. Moller). — An Macrophomæ sp.?

30. Phyllosticta Mate Speg., Anal. Mus. Nac. Buenos Aires t. XVII 6181 (1908) p. 134. — Maculis amphigenis superne subargenteis, inferne pallescentibus, primum orbicularibus dein confluendo difformibus, 1-5 mm. diam.; pycnidiis epiphyllis, subgregariis, submarginalibus, lenticularibus, coriacellis, 90-100 μ. diam., contextu opaco indistincto, nigro, ostiolo rotundo perforatis; sporulis subcylindraceis rectis v. leniter inæquilateralibus, utrinque acutiuscule obtusatis, 3-4 × 1-1,5, biguttulatis, hyalinis.

Hab. in foliis languidis Ilicis paraguariensis in dumetis circa San Pedro Reip. Argentinæ.

31. Phyllosticta Yerbæ Speg., Anal. Mus. Nac. Buenos Aires t. XVII 6132 (1908) p. 133. — Maculis amphigenis, fusco-arescentibus, determinatis, quandoque minutis, 2-3 mm. diam., orbicularibus, quandoque majusculis, 5-20 mm. diam., difformibus; pycnidiis epiphyllis lenticularibus, 80-160 μ. diam., obsolete ostiolatis, grosse parenchymaticis; sporulis obovatis v. ellipsoideis, utrinque obtusissimis, 10-12 ≈ 5-7 crassiuscule tunicatis, sæpius grosse guttulatis, hyalinis.

Hab. vulgata ad folia languida Ilicis paraguariensis in silvis prope San Pedro Reip. Argentinæ.

32. Phyllosticta Cardiospermi Speg., Mycet. Arg. V, p. 332, in An. 6183 Mus. Buenos Aires XX (1910). — Maculis sæpius epiphyllis orbiculari-difformibus, pallescentibus, subdeterminatis, 5-15 mm. d., fareola ferruginascente cinctis; pycnidiis numerosis, confertis, epiphyllis, innatis, membranaceis, latiuscule perforatis, 100-150 μ. diam., contextu minute parenchymatico, pellucide fuligineo; spo-

rulis elongato-ellipsoideis, utrinque acutiuscule rotundatis minuteque 1-guttulatis, hyalinis,  $7-9 \approx 2.5-3$ .

Hab. ad folia viva Cardiospermi velutini in silvis pr.

Posadas, Misiones, Argentina.

33. Phyllosticta Nephelii Delacroix, Bull. trim. Soc. Myc. de France, 6134 vol. XXI (1905) p. 202, fig. XIV. — Maculis fulvis, latis, indeterminatis; pycnidiis punctiformibus, nigris, sæpius epiphyllis, pallide coloratis, depressiusculis, 175 × 95; sporulis fusoideis, extremis acutis, 7 × 2,5, hyalinis; sporophoris gracillimis, 12-15 μ.

Hab. in foliis Nephelii lappacei et interdum Durionis zibethini, Congo Africæ (Dybowski). — A Phyll. Durionis

Zimm. ex descriptione verisimiliter diversa

34 Phyllosticta Ribis-rubri Vogl., Ann. R. Ac. Agr. Torino, XLIX 6135 (1906) p. 189, Phyllosticta montana Vogl. Atti R. Ac. Sc. Torino v. XLIII (1907-1908, p. 93 (247). — Maculis rotundis, leniter inflatis, dimidiam partem foliorum, seu irregularibus, magna in parte foliorum lobos occupantibus, semper castaneis; pycnidiis minutis, prominulis, epiphyllis, nigris; sporulis ellipsoideis v. lenticularibus, hyalinis, 4-7 rar. 9 × 3.

Hab. in foliis vivis Ribis rubri in montanis Pedemontii Italiæ bor.

35. Phyllosticta ribiseda Bub. et Kab., Hedw. L (1909) pag. 39. — 6186 Maculis epiphyllis sed utrinque visibilibus, rotundatis, subbullatis, distincte v. obsolete zonatis, 1 cm. lat, rubro-brunneis v. sordide brunneis, arescendo subgriseis, non v. marginatis, plerumque in maculas amplas confluentibus; pycnidiis epiphyllis, subsparsis, innatis, diu cuticula tectis, eamque leniter elevantibus, globoso-depressis, 100-190 μ. diam, poro lato pertusis, contextu tenui ochraceo; sporulis copiosis, breve cylindraceis v. ellipsoideis, 6-13 × 2,5-4,5, continuis, rectis, rarius curvulis, utrinque rotundatis, hyalinis; sporophoris papilliformibus.

Hab. in foliis morientibus Ribis rubri culti, Turnau Bohemiæ.

36. Phyllosticta ribesicida Speg., Myc. Argent. V, pag. 339, in An. 6137 Mus. Buenos Aires, XX (1910). — Maculis amphigenis, orbicularibus, albescentibus, determinatis, exareolatis, 2-5 mm. diam., linea callosa vix purpurascente cinctis; pycnidiis paucis, epiphyllis, subepidermicis, lenticularibus, 80-90 μ. diam., contextu indistincte parenchymatico, olivaceo; sporulis ellipsoideis, sæpe biguttatis, utrinque rotundatis, 3-4 × 1-1,5, hyalinis.

Hab. ad folia languida Ribis rubri in hortis Pringles, Argentina.

37. Phyllosticta Balsaminæ Voglino, Atti R. Acc. Sc. Torino XLIII 6138 (1907-1908) p. 93 (247). — Maculis epiphyllis, exaridis, ochraceoferrugineis, orbicularibus, usque ad 8 mm. latis, in foliis paullulum bullatis; pycnidiis epiphyliis, sparsis, lenticulari-globosis, atris, submembranaceis, prominulis, ostiolo distincto perforatis, 90-100-120 μ. latis; sporulis cylindraceis, utrinque obtusis, rectis, hyalinis, 7 × 2,5.

Hab. in foliis Balsamina hortensis que maxime vexantur in hortis Taurinensibus Pedemontii, Italia bor. (Tonelli).

38. Phyllosticta Kælreuteriæ Hollós, Ann. Mus. Nat. Hung. (1907) V 6139 p. 455. — Maculis oblongis, cinereis, brunneo-cinetis; pycnidiis epiphyllis, gregariis, lenticularibus, fuscis, 140-180 μ. diam., contextu parenchymatico; sporulis ellipsoideis, continuis, eguttulatis, hyalinis, 5-6 × 3-3,5.

· Hab. in foliis vivis Kælreuteriæ paniculatæ, Kecskemét Hungariæ.

39. Phyllosticta Cinnamomi Delacroix, Bull. trim. Soc. Myc. de Fr., 6140 vol. XXI (1905) p. 203, fig. XV. — Maculis ochraceis, irregularibus, margine incrassatis, mox abscissis; pycnidiis parcis, punctiformibus, nigris, 150 μ. diam., totam crassitudinem folii penetrantibus, ostiolo vix prominente; sporulis vix fusoideis, hyalinis, 10-20 × 5; sporophoris brevissimis, vix visibilibus.

Hab. in foliis Cinnamomi zeylanici, India or. v. occid.
40. Phyllosticta opuntiicola Bubák, Bull. Herb. Boiss., 2 sér. VI (1906) 6141
p. 405. — Maculis magnis, irregularibus, griseo-cinereis; pycnidiis sparsis v. gregariis, globosis, subdepressis, subepidermicis, 90-150
μ. latis, nigris, contextu castaneo-brunneo; sporulis bacillaribus, 4,5-5,5 × 1,5-3, rectis v. curvulis, utrinque guttulatis, hyalinis, unilocularibus; sporophoris minutis papilliformibus.

Hab. in cladodiis Opuntiæ Fici-indicæ prope Ulcinj Montenegro. — Socia adest Pleospora opuntiicola.

41. Phyllosticta Begoniæ Brun. — Syll. XIV, pag. 851. — Maculis 6142 rotundatis v. ellipticis, sæpe confluentibus, sinuosis, majusculis, initio dilute olivaceis, centro pallescentibus, dein fulvo-fuligineis, arescentibus et facile dilabentibus; pycnidiis sparsis, minutissimis, punctiformibus, epiphyllis, 150-180 μ. latis, nigris; sporulis ovoideis, hyalinis, 5 × 2, 5 × 3.

Hab. in foliis vivis Begoniæ Credneri et metallicæ

qua maxime vexantur in Gallia et Italia. — Hac nova diagn. emend. sec. Voglino, Atti R. Acc. Sc. Torino v. XLIII (1907-

1908) p. 94 (248).

42. Phyllosticta sicyna Sacc., Ann. mycol. VIII (1910) p. 343. — Maculis amphigenis ex orbiculari angulosis, 3-6 mm. diam., demum candidis, margine subelevato non discolori; pycnidiis epiphyllis, paucis, punctiformibus, lenticularibus, nigris, 140-150 μ. diam., poro pertusis; sporulis ovato-fusoideis, utrinque acutulis, 5,5-7 × 3-4, eguttulatis, hyalinis.

Hab. in foliis languidis Sicyi angulati, Lyndonville, New York, Amer. bor. (C. E. FAIRMAN). — Ab affini Ph. Cucurbitacearum differre videtur pycnidiis majoribus, sporulis quoque majoribus quoque quoque majoribus quoque quo

ribus et imprimis crassioribus.

43. Phyllosticta ramicola Petch, Ann. Roy. Bot. Gard. Peradenya 6144 III, Pt. I (1906) p. 5. — Pycnidiis 0,1-0,25 mm. diam., nigris, epidermide velatis, confertis, subprominulis, lenticularibus, 75-140 μ. alt.; sporulis anguste ovoideis, utrinque acutis, viridescentihyalinis, sæpe biguttulatis, 8-12 × 2-3, in cirrum albidum tenuem expulsis.

Hab. in maculis ramulorum Heveæ brasiliensis, Ceylon.

44. Phyllosticta Ghæsembillæ Koord., Botan. Untersuch. (1907) p. 205. 6145 — Maculis amphigenis, suborbicularibus, arescendo dealbatis, solitariis v. confluentibus; pycnidiis globosis, ostiolatis, 80-110 μ. d.; sporulis 9-10 × 4,5-5, elongatis, utrinque rotundatis; sporophoris brevissimis, 2,5 μ. c. longis.

Hab. in foliis vivis Antidesmatis Ghæsembillæ prope

Penungalan prov. Kedu (Java) april. 1906 (Koorders).

45. Phyllosticta Manioth Speg., Myc. Arg. V, p. 335, in An. Mus. 6146 Buenos Aires, XX (1910). — Maculis amphigenis arescendo albescentibus, repandulo-suborbicularibus, determinatis, exareolatis, 3–10 mm. diam.; pycnidiis innatis, ostiolatis, epiphyllis, atris, lenticularibus, 80-120 μ. diam., coriaceis, contextu olivaceo-atro, subindistincto; sporulis ellipsoideis, minute 2-guttulatis, rectis, 4 6 × 1,5-2, hyalinis.

Hab. ad folia viva v. languida Manioth Aipi cultæ prope

Fracrán, Misiones, Argentina.

46. Phyllosticta Ætoxici Speg., Fungi Chilenses (1910) pag. 136. — 6147 Maculis epiphyllis, orbicularibus, 2-7 mm. diam., albescentibus, determinatis, areola angusta atro-purpurea-cinctis; pycnidiis lenticularibus, 75-80 μ. diam., epidermide tectis, ostiolatis, coriacellis, ni-

gris; sporulis subcylindraceis,  $4-5 \approx 1,5-1,75$ , in sporophoris filiformibus,  $15-20 \approx 1$  acrogenis, hyalinis.

Hab. in foliis vivis Ætoxici punctati in silvis Cerro Caracol de Concepcion Chile Amer. austr.

47. Phyllosticta cissicola Speg, Mycet. Arg. V, p. 332, in An. Mus. 6148 Buenos Aires, XX (1910). — Maculis amphigenis, orbicularibus, parvis, candidis, determinatis, areola angusta fusco-livescente cinctis, 3-5 mm. diam.; pycnidiis epiphyllis, laxe gregariis, fuscis, epidermide velatis, lenticularibus, 80 μ. diam., ostiolo latiusculo pertusis; contextu minute parenchymatico, pellucido-fuligineo; sporulis ellipsoideis v. obovatis, non v. 1-2-guttulatis, 5-6 × 2-3, hyalinis, rectis curvulisve.

Hab. ad folia viva Cissi sycioidis in sepibus Orán, Argentina.

48. Phyllosticta Aristoteliæ Speg., Fungi Chilenses (1910) p. 137. — 6149 Maculis amphigenis subdeterminatis, angulosis, 2-5 mm. diam., fuscis; pycnidiis hypophyllis densiuscule gregariis, subhemisphæricis, 75-90 μ. diam., ostiolatis, prominulis, epidermide tectis; sporulis cylindraceis v. subbotuliformibus, rectis v. curvulis 3-4 × 1, hyalinis.

Hab. in foliis languidis Aristoteliæ Maqui in silvis Cerro Caracol de Concepcion Chile Amer. austr.

49. Phyllosticta bacterioides Vuill. Ann. mycol. III (1905) p. 425. 6150 — Mycelio hyalino tenuissimo, 1 μ. diam., septato, intercellulari, sub epidermide dorsali, in maculis atro-brunneis, medio fuscescentibus, 0,5-1,5 mm. diam.; pycnidiis hypophyllis sparsis, 50 μ. (rarius 42-73 μ.) diam., spheroideis, olivaceis, contextu plectenchymatico; sporulis bacillaribus utrinque obtusis, minimis, hyalinis, medio non v. vix constrictis, 3,4-3,7 ≈ 0,6.

Hab. in foliis vivis Tiliæ silvestris, Bois de la Fourasse inter Nancy et Champignelles, Gallia. — Socia adest Cercospora microsora.

50. Phyllosticta osteospora Sacc. — Syll. III, p. 34 — var. Staphy-6151 leæ C. Mass., Osserv. fitolog. in Madonna Verona vol. II (1908) Extr. p. 8. — Maculis irregularibus, amphigenis, in pagina superiore foliorum subatratis, in inferiore umbrinis; pycnidiis hypophyllis, nigris, punctiformibus, prominulis, parietibus membranaceis, ostiolo latiusculo perviis, 60-100 μ. diam.; sporulis bacillaribus, hyalinis, utrinque incrassatis 4-6 × 1-1,5.

Hab. in foliis languidis Staphyleæ pinnatæ prope Cogolo Verona Italiæ bor.

51. Phyllosticta Vignæ Speg., Myc. Argent. V, p. 341, in An. Mus. 6152 Buenos Aires XX (1910). — Maculis amphigenis, orbicularibus, subindeterminatis, sordide pallescentibus v. subcinerescentibus, 2-7 mm. diam.; pycnidiis paucis, sæpius centralibus atris, subepidermicis, 75-90 μ. diam., modice ostiolatis, lenticularibus, contextu parenchymatico, olivaceo; sporulis tereti-ellipsoideis, grosse 2-guttulatis, 6-10 ≈ 3-4, sæpe subnavicularibus v. medio obsolete coarctatulis, hyalinis.

Hab. ad folia viva v. languida Vignæ luteolæ in uliginosis,

Isla Santiago, prope La Plata, Argentina.

52. Phyllosticta Oxytropidis Hollós, Ann. Mus. Nat. Hung. IV (1906) 6158 p. 336. — Maculis orbicularibus, ochraceis; pycnidiis hypophyllis, dense gregariis, globulosis, nigris, 100-140 μ. diam., contextu parenchymatico; sporulis cylindraceis, rectis, allantoideis, continuis, hyalinis 6 × 1.

Hab. in foliis languidis Oxytropidis pilosæ prope Tisza-

Ugh Hungariæ.

53. Phyllosticta Exscapi Hollós, Ann. Mus. Nat. Hung. IV (1906) 6154 pag. 335. — Maculis nullis; pycnidiis amphigenis, sparsis, tectis, globoso-depressis, nigro-brunneis, minutissime papillatis, 100-150 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, continuis, eguttulatis, hyalinis, 6-7 × 2-3.

Hab. in foliis languidis Astragali exscapi prope Kecskemét Hungariæ. — A Phyll. desertorum Sacc. valde diversa.

54. Phyllosticta prosopidicola Speg., Myc. Argent. V, pag. 338, in 6155 An. Mus. Buenos Aires XX (1910). — Maculis amphigenis, difformibus, albescenti-arescentibus, determinatis, sæpius areola angustissime callosa, purpurascente limitatis, subinde totam partem dimidiam anter. foliorum occupantibus; pycnidiis velatis, laxe gregariis, sublenticularibus, 60-90 μ. diam., ostiolo parvo angulato pertusis, contextu obscure parenchymatico; sporulis ellipsoideis 2-guttulatis, hyalinis, 5-6 × 2,5-3.

Hab. ad folia viva Prosopidis albæ in silvis prope Oran, Argentina.

55. Phyllosticta Derridis P. Henn. in Fl. du Bas- et Moy.-Congo, in 6156 Ann. Mus. du Congo v. II, fasc. III (1908) p. 228. — Maculis rotundatis v. marginalibus effusis, pallidis; pycnidiis gregariis erum-

pentibus, atro-membranaceis, subsphæroideis, poro pertusis, 60-90 µ. c. cr.; sporulis ellipsoideis, hyalinis, eguttulatis, 2-2,5 ≈ 1,5.

Hab. in foliis Derridis spec., Dembo Congo, Africa (VAN-DERYST).

56. Phyllosticta Milletiæ P. Henn., in Fl. du Bas- et Moy.-Congo, in 6157 Ann. Mus. du Congo v. II, fasc. III (1908) p. 227. — Maculis rotundatis, angulatis v. confluentibus, pallidis, exaridis, zona brunnea circumdatis; pycnidiis sparse gregariis, sæpe concentrice dispositis, sphæroideis, atris, cellulosis, poro pertusis, 90-100 μ. c. cr.; sporulis subglobosis, hyalinis, eguttulatis, 3-4 μ. cr.

Hab. in foliis Milletiæ sp., Boko Sainte-Barbe Congo, Africa

(VANDERYST).

57. Phyllosticta Erythrinæ Petch, Ann. Roy. Bot. Gard. Peradeniya 6158 III, Pt. I (1906) p. 4. — Pycnidiis nigris, minutis, lenticularibus, prominentibus, epidermide excepto ostiolo tectis, 90-180 × 60-70; ostiolis circ. 10 μ. diam.; sporulis lineari-ovatis, hyalinis, utrinque acutis, 6-8 × 2; sporophoris circ. 10 μ. long.

Hab. in maculis ramealibus Erythrinæ lithospermæ, Ceylon.

58. Phyllosticta sophoricola Hollós, Ann. Mus. Nat. Hung. V (1907) 6159 p. 456. — Maculis irregularibus, cinereis, fusco-cinetis; pycnidiis amphigenis, dense gregariis, depresso-globosis, brunneis, 80-100 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, continuis, eguttulatis, hyalinis, 7-8 × 2,5-3.

Hab. in foliis vivis Sophoræ japonicæ prope Kecskemét Hungariæ.

59. Phyllosticta robinicola Hollós, Ann. Mus. Nat. Hung. VIII 6160 (1910) p. 2. — Pycnidiis gregariis, tectis, globulosis, minutissime papillatis, ochraceis, 140-170 μ. diam., contextu celluloso; sporulis ellipsoideis, eguttulatis v. obscure biguttulatis, continuis, hyalinis, 6-7 × 2-3.

Hab. in floribus dejectis Robiniæ Pseudoacaciæ prope Kecskemét Hungariæ.

60. Phyllosticta neomexicana Bub. et Kab. Hedwigia L (1909) p. 38. 6161 — Maculis amphigenis, sparsis, e circulari angulosis, minutis, 1-2 mm. diam., superne alutaceis, arescendo griseis, subelevatis, margine lato flavo cinctis, subinde confluentibus; pyenidiis hypophyllis, confertis, minutis, greges internervios nigros, angulatos formantibus, globosis, variæ magnitudinis, 60-160 μ. diam., nigris,

subcutaneis, ostiolo brevi conico erumpentibus, dein poro pertusis, contextu minute celluloso, vertice obscuriore; sporulis breve bacillaribus,  $3,5-4,5 \approx 1,5-2$ , utrinque rotundatis; sporophoris breve papilliformibus, hyalinis.

Hab. in foliis morientibus Robiniæ neomexicanæ in

Schola dendrologica pr. Turnau Bohemiæ.

61. Phyllosticta Missionum Speg., Myc. Argent. V, p. 336, in An. 6162 Mus. Buenos Aires, XX (1910). — Maculis amphigenis, maximis, cinereo-arescentibus, determinatis, areola angusta purpurascenti limitatis, sæpe totum folium occupantibus; pycnidiis sparsis v. laxe gregariis, amphigenis, innato-erumpentibus, lenticularibus, 78-80 μ. diam., ostiolo rotundo latiusculo pertusis, contextu minute parenchymatico fumoso-fusco; sporulis tereti-ellipsoideis, eguttulatis, hyalinis, rectis, 4-6 × 2-2,5.

Hab. ad folia viva Bauhiniæ sp. in silvis pr. Puerto Leon Argentinæ.

62. Phyllosticta calaritana Briosi et Cav., Funghi parass. essic. n. 390 6168 (1905) c. ic. — Maculis marginalibus, valde irregularibus, castaneo-brunneis; pycnidiis epiphyllis, tectis, parum prominulis, globosis, 135 μ. diam., peridio valido, carbonaceo donatis; sporulis oblongis, utrinque obtusiusculis, rectis v. curvulis, 15-20 × 4,5-5,5; sporophoris minimis suffultis.

Hab. in foliis vivis Ceratoniæ Siliquæ, in Horto botanico, Cagliari, Sardegna. — An Macrophoma?

63. Phyllosticta mespilicola Rota-Rossi, in Atti R. Ist. bot. Pavia 6164 (1905) XI, p. 307-308, Prima Contrib. Micol. Bergamo, l. c. — Maculis irregulariter orbicularibus, amplis, ferrugineis, fusco-cinctis; pycnidiis amphigenis, globosis, ostiolo prominulo præditis, nigris, minusculis, 45-75 μ. diam.; sporulis hyalinis, bacillaribus, 2,5-3,5 × 1.

Hab. in foliis Mespili germanicae, Palazzago, Bergamo Italiae borealis. — A Ph. Mespili et Ph. mespilina macularum colore, pycnidiorum diametro sporularumque forma et mensuris valde differt.

64. Phyllosticta circinans (Peyl) Sacc. et Trav. — Syll. XX, p. 1285 6165 — Sphæronæma circinans Peyl, Beschreib. einig. neuer Pilze in Lotos VIII (1858) p. 31, t. I, f. 18. — Maculis subcircularibus, sæpius marginalibus, brunneis, concentrice ruguloso-zonatis; pycnidiis membranaceis, subglobosis, subcutaneis, ostiolo sensim concideo vix erumpente, prominulo (non rostellato), nucleo albo-

flavido in globulum eructato; sporulis globoso-ovoideis, hyalinis, majusculis.

Hab. in foliis vivis sed mox putrescentibus Pruni Laurocerasi in frigidariis culta, in Bohemia.

- 65. Phyllosticta Pruni-domesticæ Vogl., Annal. R. Ac. Agric. Torino 6166 XLVIII (1905) p. 441, Phyll. domestica Vogl., Atti R. Ac. Sc. Torino v. XLIII (1907-1908) p. 93 (247). Maculis epiphyllis, griseis, arescendo albicantibus, paullum bullatis, late castaneo-marginatis, orbiculatis, 0,5-2-2,5 mm. diam, confluentibus, demum in centro corrosis, in pagina inf. castaneis; pycnidiis epiphyllis, nigris, sparsis, minutis, 100-110 μ. lat., ovato-prominulis, pertusis; sporulis cylindraceis, rectis, utrinque rotundatis, hyalinis, 2,3-5,4 × 1,15.
- Hab. in foliis Pruni domesticæ in Pedemontio Italiæ bor. 6167
  66. Phyllosticta Phytoptorum Bubák, Myc. Beitr., Hedw. Bd. XLVI (1907) p. 289. Pycnidiis plerumque epiphyllis, primum epidermide tectis, mox erumpentibus, globosis, subdepressis, 120-200 μ. latis, nigris, opacis, poro minuto obscuro papilliformi præditis, basi flavido-brunneis, supra nigricantibus, contextu parenchymatico; sporulis minutis, bacillaribus, rectis, 2-3 × 1-1,5, hyalinis; sporophoris brevibus, indistinctis.

Hab. in pustulis tantum a Phytopto Piri generatis in foliis Piri communis et Sorbi aucupariæ, Bohemia et Austria.

67. Phyllosticta innumerabilis Peck, Bull. Torr. Bot. Club, XXXVI 6168 (1909) p. 336. — Maculis magnis, suborbicularibus, aliquando folii partem magnam occupantibus, brunneis, in margine flavidis; pycnidiis hypophyllis, minutis, 80-100 μ. lat., dense gregariis, numerosissimis, membranaceis, orbicularibus, melleis; sporulis oblongis v. cylindraceis, hyalinis, 6-8 × 1,5-2, sporophoribus 10-12 × 1-1,2 suffultis.

Hab. in foliis vivis Amelanchieris, Fort Niobrara Nebraska Amer. bor. (J. M. Bates).

68. Phyllosticta persicophila Trav. et Migliardi, Flora micol. prov. 6169 Venezia (1911) p. 11. — Maculis marginalibus, initio subcircularibus dein irregulariter extensis, '/₂-2 cm. latis, arescendo ochraceo-stramineis, centro albicantibus, primitus regulariter fulvo-marginatis dein margine expanso, diluto, haud raro subzonato; pycnidiis densiuscule sparsis, punctiformibus, nigris, globoso-depressis, 250-400 μ. diam., poro circulari pertusis; sporulis cylindraceo-oblongis v.

ovoideo-elongatis, eguttulatis, hyalinis,  $5-8 \approx 2^1/_2-3^1/_2$ ; sporophoris cylindraceis, irregularibus, hyalinis,  $12-18 \approx 1^1/_2-2$ .

Hab in foliis Persicae vulgaris, quas valde vexat in hortis S. Nicoletto di Lido, Venetiis, Ital. bor. — A Ph. Persicae et Ph. persicina maculis majoribus, sporulis angustioribus et sporophoris distincte evolutis, facile dignoscenda species.

69. Phyllosticta albo-maculans Kab. et Bub., Hedw: XLVII (1908) 6170 p. 354. — Maculis amphigenis conspicuis, supra albis et siccis, infra alutaceo-brunneis, irregulariter angulosis, nervis limitatis, 1-3 mm. latis, plus minus distincte rubro-carmineo marginatis, sæpe confluentibus; pycnidiis epiphyllis, punctiformibus, sparsis, globosis, depressis, 90-150 μ. latis, ex obscure brunneo nigricantibus, epidermide tectis, demum superficialibus, poro minuto rotundato apertis, contextu minute parenchymatico, obscure brunneo; sporulis ellipsoideis 3,5-6,5 (raro usque ad 8) μ. long., 2-3,5 μ. latis, unilocularibus, hyalinis, biguttulatis; sporophoris brevibus, papilliformibus, hyalinis.

Hab. in foliis vivis Pruni Padi prope Turnau Bohemia (Kabar). — A Ph. sanguinea maculis sporulisque minoribus diversa.

70. Phyllosticta velata Bubák, Beitr. Pilzfl Ung., in Növenytani 6171 Közlemények (1907) Heft. 4, Extr. p. 27. — Maculis rotundatis v. ellipsoideis, distincte limitatis, e brunneo-alutaceis rubro-brunneis, numerosis, sparsis, sæpe confluentibus, in hypophyllo tenuioribus; pycnidiis in mesophyllo immersis, epidermide velatis dein prominentibus, globosis v. sublenticularibus, 100-180 μ. diam., nigris, contextu brunneo parenchymatico, poro minuto apertis; sporulis ex ovoideo elongatis, 4-6 × 2-3,5, rectis, raro curvulis vel etiam inæquilateris, utrinque rotundatis, olivaceo-brunneis; sporophoris pallide brunneolis, papilliformibus.

Hab. in foliis vivis Cydoniæ vulgaris in M. Allion prope Orsona Hungariæ. — A Ph Cydoniæ (Desm.) Sacc. et Ph. cydonicola All. maculis et sporulis olivaceo-brunneis omnino diversa. Ad subgen. Phyllostictella spectat.

71. Phyllosticta Spirææ-salicifoliæ Kab. et Bub. Hedwigia L (1909) 6172 p. 39. — Maculis epiphyllis, sed utrinque visibilibus, e rotundato oblongis, alutaceis, v. atro-brunneis sæpe, non semper, margine angusto purpureo-brunneo limbatis, interdum confluentibus; pycnidiis epiphyllis, innatis, subsparsis, interdum gregariis v. confertis, lenticularibus, 70-120 μ. diam., subcastaneis, poro minuto pertusis, pallide brunneis, subdiaphanis, laxe cellulosis; sporulis

copiosis, ellipsoideo-teretiusculis  $4-8 \approx 2,5-3,5$ , utrinque rotundatis, continuis, hyalinis, rarissime sub-1-septatis; sporophoris papilliformibus.

Hab. in foliis vivis Spirææ salicifoliæ pr. Turnau Bohem.
72. Phyllosticta aruncina Sacc., in Ann. Mycol. X (1912) p. 317. — 6178
Maculis caulinis, versiformibus, sæpius minutis, albis, marginulo angustissimo leniter elevato limitatis; pycnidiis punctiformibus, lenticularibus, poro pertusis, 100 μ. diam., minute parenchymaticis, atris; sporulis ellipsoideis, 3-4 × 2, dilutissime flavidis, obsolete 2-guttulatis, sessilibus.

Hab in caulibus Spirææ Arunci, Selva, Treviso, Ital. bor. — A *Phyll. Arunci* Sacc. differt sporulis paullo brevioribus et latioribus (non  $5 \times 0.7$ ) et flavidulis, præterea quia est species caulicola.

73. Phyllosticta Theæ Speschnew, Pilzparasiten d. Teestrauches (1907) 6174 p. 16, tab. III, fig. 1-4. — Maculis epiphyllis, versiformibus dealbatis, non marginatis; pycnidiis sparsis, raris, lenticulari-punctiformibus, valde applanatis, 100-240 μ. cr., 60-80 μ. alt. poro lato pertusis; sporulis hyalinis, oblongo-ellipsoideis, semper obsolete biguttulatis, 6-8 × 1,5-2.

Hab. in foliis Theæ sinensis et Th. assamicæ, Tschakwa prope Batum Caucasia.

74. Phyllosticta Comolliæ Spegazz., Mycet. Argent. V, in An. Mus. 6175 Buenos Aires, XX (1910) p. 333. — Maculis amphigenis orbicularibus albescenti-subrufescentibus, determinatis, 1-5 mm. diam., areola purpurascenti cinctis; pycnidiis epiphyllis laxe gregariis, atris, sublenticularibus, 50-80 μ. diam.; contextu membranaceo dense minuteque parenchymatico olivaceo, ostiolo rotundo minuto pertuso; sporulis rectis v. leniter inequilateralibus, utrinque acutiuscule rotundatis, 3-4 × 1, hyalinis, eguttulatis.

Hab. ad folia Comolliæ platensis in insula Santiago, La Plata Argentinæ.

75. Phyllosticta fuchsiicola Speg., Fungi Chilenses (1910) p. 138. — 6176 Maculis albidis amphigenis orbicularibus determinatis, 1-5 mm. d., areola ampla purpurascenti cinctis; pycnidiis innatis paucis epiphyllis lenticularibus, pusillis, 75-90 μ. diam., ostiolatis, membranaceis; sporulis subcylindraceo-ellipsoideis, 4-6 × 1,5-2, hyalinis.

Hab. in foliis vivis Fuchsiæ coccineæ, Bahia de Corral Chile Amer. austr.

76. Phyllosticta Epilobii-rosei Krieg., Ann. Mycol. VII (1909) p. 542; 6177 Krieg., Fungi saxon. n. 2096. — Maculis rotundatis v. irregula-

ribus, hine inde confluentibus, primum flavo-brunneis, margine obscurioribus, dein centro pallescentibus et margine indefinitis; pyenidiis globosis, amphigenis, 130-150  $\mu$ . diam.; sporulis cylindraceis, utrinque rotundatis, hyalinis, guttulatis vel non, 4,5-6  $\approx$  1.5-2.

Hab. in foliis Epilobii rosei prope Königstein, Germania.

77. Phyllosticta taurica R. Maire, Champ. Asie Mineure, Bull. Soc. 6178

Sc. de Nancy (1906) Extr. p. 7. — Pyenidiis minutis, brunneis, sphæroideis, membranaceis, in macula arida grisea purpureo-marginata insidentibus; sporophoris brevissimis; sporulis bacillaribus, hyalinis, utrinque acutatis, rectis v. curvulis, 6-8 × 1-1,5.

Hab. in foliis Corni maris in monte Tauro prope Pilas Cilicias. Anatolia

78. Phyllosticta Milenæ Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 6179 p. 404. — Maculis magnis irregularibus griseis v. pallide alutaceis; pycnidiis gregariis globosis v. e globoso depressis discoideis, 45-130 μ. diam., nigris, primum subepidermicis dein erumpentibus, crasse tunicatis, contextu parenchymatico castaneo-brunneo; sporulis variabilibus, ovoideis, elongatis, v. e cylindraceo fusoideis, 6-9 × 2,5-4, rectis v. curvulis, utrinque rotundato-angustatis, sæpe uno latere latioribus, hyalinis, unilocularibus; sporophoris latis papilliformibus, flavidis.

Hab. in foliis senioribus Hederæ Helicis prope Ulcinj Montenegro.

79. Phyllosticta Paratropiæ Sacc., Ann. Mycol. VI (1908) p. 554. — 6180 Maculis amphigenis orbiculari-angulatis, 3-10 mm. lat., pallide alutaceis, elevato-marginatis, demum albicantibus; pycnidiis punctiformibus, nigris, densiusculis, plerumque epiphyllis, lenticularibus, 150-180 μ. diam., minute pertusis, contextu minute celluloso, fuligineo; sporulis oblongo-ellipsoideis, 2,5-3 × 1,5-2, hyalinis.

Hab. in foliis Paratropiæ rotundifoliæ (Araliac.) in Horto botanico Panormitano, Sicilia (J. H. MATTEI).

80. Phyllosticta Arthrophylli Koord., Bot. Unters. Java (1907) p. 204, 6181 fig. 25. — Maculis circularibus expallescentibus 3 mm. c. latis, zona crassiuscula fusca limitatis; pycnidiis paucis punctiformibus, lenticularibus, ostiolatis, ad centrum maculæ sitis; sporulis cylindraceo-fusiformibus, rectis, utrinque acutis, hyalinis, 10-14 × 3,5-4.

Hab. in foliis vivis Arthrophylli diversifolii pr. Kaliwiro prov. Kedu Java (Koorders).

81. Phyllosticta ulcinjensis Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 6182

p. 405. — Pycnidiis in maculis magnis albo-flavidis v. viridibus, anguste brunneo-marginatis parce gregariis, 100-180  $\mu$ . latis, diu epidermide tectis, globoso-depressis, pallide flavis, colliculosis, contextu tenui flavo-brunneo, minute parenchymatico; sporulis cylindraceis, rectis v. curvulis, 5-9  $\times$  2,5-3,5, utrinque rotundatis, hyalinis, guttulatis, unilocularibus v. nonnullis spurie biseptatis.

Hab in foliis vivis tenuioribus Hederæ Helicis prope Ul-

cinj, Montenegro.

82. Phyllosticta belgradensis Bubák et Ranojevic, Ann. Myc. VIII 6183 (1910) pag. 381. — Maculis epiphyllis, plerumque marginalibus, irregularibus, griseo-cinereis, dein brunneo-marginatis; pycnidis epiphyllis, congregatis, globosis, epidermide tectis, dein erumpentibus, 120-160 μ. cr., contextu parenchymatico obscure brunneo, ostiolo distincto, immarginato præditis; sporulis ovoideis, subinde ellipsoideis, 5,5-7,5 × 3-4,5.

Hab. in foliis Hederæ Helicis prope Belgrad, Serbia. — Phyll. hederaceæ proxima sed sporulis majoribus diversa.

83. Phyllosticta eryngiicola Bubák, Beitr. Pilzfl. Ung., in Növény- 6184 tani Közlemények (1907) Heft 4, Extr. p. 24. — Pycnidiis nigris, 90–160 μ. diam., parietibus crassis præditis, contextu grosse parenchymatico; sporulis ovoideis v. ellipsoideis, 4-5 × 2,5-3,5, pallide olivaceis.

Hab. in foliis vivis Eryngii campestris prope Orsava Hungariæ. — Magnitudine et colore sporularum, colore pyenidiorum a Ph. eryngiella præcipue diversa. — Ad subgen. Phyllosticella spectat.

84. Phyllosticta eryngiella Bub., Beitr. Pilzfl. Ung., in Növenyt. Közlemények (1907) Heft 4, Extr. p. 24. — Maculis polygoniis, parvis, nervis indistincte limitatis, sæpe confluentibus, arescendo albis, utrinque visibilibus subpellucidis; pycnidiis in parvos greges dispositis, immersis, demum erumpentibus, globosis vel leniter depressis, obscure brunneis, 100-180 μ. diam., parietibus tenuibus præditis, contextu parenchymatico brunneo, poro minuto papilliformi apertis; sporulis variabilibus, ovoideis, ellipsoideis, elongatis v. cylindraceis, 5-11 × 2-4,5, utrinque rotundatis v. raro uno apice angustatis, quandoque indistincte guttulatis; sporophoris brevibus, papilliformibus, hyalinis.

Hab. in foliis vivis Eryngii campestris prope Orsova Hungariæ.

85. Phyllosticta malisorica Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 6186

pag. 404. — Maculis rotundatis v. elongatis, 23 mm. latis, arescendo sordide albidis, indistincte marginatis; pycnidiis gregariis, globoso-depressis, 100-120  $\mu$ . latis, obscure brunneis, tenuiter tunicatis, poro centrali minuto apertis, contextu parenchymatico flavo-brunneolo; sporulis ex ellipsoideo elongatis, 6-9  $\approx$  2,5-3,5, rectis v. curvulis, utrinque rotundatis, hyalinis, unilocularibus.

Hab. in foliis Opoponacis Chironii prope Ulcinj, Mon-

tenegro.

86. Phyllosticta Cicutæ Lind, Ann. Mycol. V (1907) p. 275. — Maculis foliicolis magnis utrinque visibilibus, elongatis, nervis limitatis, arescendo griseo-ochraceis, obscure brunneo-marginatis; pycnidiis minutis, lenticularibus, nigris, epiphyllis, gregariis, subsuperficialibus, 80-110 μ. diam.; sporulis unilocularibus, hyalinis, 5-7 μ. long, latitudine variabilibus, plerumque 1,5 μ. cr. et tunc cylindraceis v. 3 μ. cr. et tunc subovoideis.

Hab. in foliis vivis Cicutae virosæ prope Rindsholm Jüt-

landia, Dania.

87. Phyllosticta hamasensis Sacc. Ann. Mycol. VIII (1910) p. 338. — 6188 Maculis vagis, amphigenis, subochraceis, immarginatis; pycnidiis amphigenis, nigris, confertissimis maculasque atras reddentibus, globulosis, innato-prominulis, 80-110 μ. diam., poro latiusculo hiantibus; sporulis cylindraceis, rectis, 5-6 × 1,5-2, hyalinis.

Hab. in foliis languidis Peucedani fraxinifolii, Nefasit ad Mahabar, alt. 1600 m. (Hamasen) Africa (HADR. FIORI). — Pycnidia videntur oriri ex tuberculis Cercosporce hamasensis, de

qua cfr.

88. Phyllosticta albanica Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 6189 p. 403. — Maculis epiphyllis, 2-6 mm. latis, rotundatis v. irregularibus, griseis, brunneo-marginatis; pycnidiis epiphyllis, sparsis, depressis, 80-150 μ. latis, nigris, contextu obscure castaneo-brunneo, distincte parenchymatico; sporulis bacilliformibus, subirregularibus, 2-5 × 1, rectis v. curvulis, hyalinis; sporophoris papilliformibus.

Hab. in foliis vivis Lamii Galeobdoli prope Andrijevice, in Montenegro.

89. Phyllosticta Galeobdoli Syd., Ann. Mycol. VI (1908) p. 484. — 6190 Maculis irregularibus, distinctis, 2-10 mm. longis, albidis, brunneo- v. atropurpureo-marginatis; pycnidiis epiphyllis, sparsis, globosis, atro-brunneis, 130-200 μ. diam.; sporulis oblongis, continuis, hyalinis, utrinque rotundatis, utrinque 1-guttulatis, 4-5 × 1-1 ½.

Hab. in foliis Galeobdoli lutei, Rotstein prope Sohland Saxonia (A. Schade). — An diversa a Ph. albanica?

90. Phyllosticta Melissæ Bubák, Beitr. Pilzfl. Ung., in Növénytani 6191 Közlemények (1907) Heft 4, Extr. p. 25. — Maculis sparsis, parvis, 1–3 mm. diam., rotundato-sinuatis, primum brunneis siccis, dein pallescentibus et subpellucidis, linea tenui, obscure brunnea limitatis; pycnidiis sparsis, globosis, subepidermicis, nigris, epidermidem inflantibus, 40-55 μ. diam., contextu parenchymatico brunneo, ostiolo minuto erumpentibus; sporidiis breviter cylindraceis v. elongatis, 4,5–8,5 × 2,5-3,5, utrinque rotundatis v. uno latere leniter angustatis, hyalinis.

Hab. in foliis vivis Melissæ officinalis prope Báziás Hungariæ. — A Phyll. Lamii colore et magnitudine pycnidiorum diversa.

91. Phyllosticta montellica Saccardo, Not. Myc. VI, Ann. Myc. III 6192 (1905) p. 512. — Maculis amphigenis, e rotundo angulosis, atrosanguineis, centro arescendo candicantibus; pycnidiis plerumque epiphyllis, punctiformibus, lenticularibus 80-90 μ. diam., poro rotundo pertusis; sporulis oblongo-ellipsoideis, 4-5 × 1,5, hyalinis, intus granulosis.

Hab. in foliis vivis Melittidis Melissophylli in silva Montello (Treviso) Ital. bor. — Phyll. Melissophylli differt sporulis  $6 \lor 4$ .

92. Phyllosticta variicolor Bubàk, Beitr. Pilzfl. Ung., in Növénytani 6193 Közlemények (1907) Heft 4, Extr. pag. 27. — Maculis foliicolis epiphyllis, paucis, plerumque 1-4, brunneis, irregularibus, medio arescendo albo-flavidis, areola brunnea v. brunneo-coriacea sublimitatis, et tunc usque ad 1,5 cm. latis; pycnidiis epiphyllis in medio macularum sparse dispositis, subepidermicis, globosis v. parum depressis, 70-100 μ. diam., obscure brunneis, contextu distincte parenchymatico, pallide brunneo; sporulis bacillaribus, raro elpsoideis, 5-8 × 2-2,5, utrinque rotundatis, hyalinis, guttulatis.

Hab. in foliis vivis Stachydis germanicæ, Csernatale pr. Herculesfürdö Hungariæ. — A Ph. Stachydis Br. et ejusdem var. arvensis All. omnino diversa.

93. Phyllosticta Aloysiæ Speg., Mycet. Arg. V, p. 329, in An. Mus. 6194 Buenos Aires, XX (1910). — Maculis suborbicularibus, amphigenis, subdeterminatis, fuscescentibus, centro albicantibus, 1-3 mm. diam.; pycnidiis solitariis v. laxe gregariis, innato-erumpentibus, pusillis, minute ostiolato-pertusis, 75 μ. diam., lenticularibus; con-

textu parenchymatico olivaceo; sporulis e cylindraceo ellipsoideis, eguttulatis, utrinque obtuse rotundatis, 4-6 × 1,5-2, hyalinis.

Hab. ad folia languida Lippiæ (Aloysiæ) citriodoræ in

horto Spegazzini, La Plata, Argentina.

94. Phyllosticta cyclaminella Bubák, Bull. Herb. Boiss. 2 sér. VI 6195 (1906) p. 404. — Maculis utrinque visibilibus, rotundatis v. elongatis, 1-3 mm. latis, arescendo albidis, linea brunnea vix limitatis; pycnidiis epiphyllis, sparsis, subepidermicis dein erumpentibus, globosis, 90-170 μ. latis, brunneo-nigris, contextu pallide brunneo; sporulis ex ellipsoideo cylindraceis, 6-9 × 2-3, utrinque rotundatis, hyalinis, unilocularibus, guttulatis.

Hab. in foliis Cyclaminis neapolitani prope Virpazar
Montenegro — A Ph. Cyclaminis Br. pycnidiis sporulisque ma-

joribus præcipue distincta.

95. Phyllosticta Rapaneæ Speg., Myc. Arg. V, p. 338, in An. Mus. 6196 Buenos Aires, XX (1910). — Maculis repando-orbicularibus, amphigenis, determinatis, fuscescentibus, 5-10 mm. diam., linea angustissima callosa limitatis, exareolatis, centro sæpius maculis 1 v. 2 pusillis determinatis cinereis ornatis; pycnidiis paucis, centralibus, epidermide tectis, epiphyllis, 90-100 μ. diam., contextu tenui parenchymatico fuligineo, ostiolo rotundo pertuso; sporulis elongato-ellipsoideis v. subnavicularibus, 2-guttulatis, 5-8 × 1,5, hyalinis.

Hab. ad folia viva Rapaneæ Lorentzii in uliginosis, Isla

Santiago, La Plata, Argentina.

96. Phyllosticta Sapotæ Sacc. in Ann. Mycol. X (1912) p. 312. — 6197 Maculis versiformibus, sæpe marginalibus, cinereo-brunneis, ambitu saturatioribus, amphigenis; pyenidiis raris, lenticulari-globosis, 100 μ diam., poro pertusis, distincte cellulosis, nigricantibus; sporulis ellipsoideis, 10-12 × 5,5-6, granuloso-guttulatis, subsessilibus.

Hab. in follis subvivis Achræ Sapotæ in insulis Bahama Americæ centr. Legit Rev. H. Q. Morton, comm. Dr. Fairman.

97. Phyllosticta Diervillæ Davis, Trans. Wisconsin Ac. of Sc. XVI, 6198 Pt. II (1909) pag. 761. — Maculis irregularibus, sæpe apicalibus, brunneis, margine flavido indefinito, 1-4 cm. diam.; pycnidiis amphigenis, sparsis, globosis, brunneolis, 80-110 μ. diam.; sporulis hyalinis, oblongis 3-5 × 1,5-2.

Hab. in foliis Diervillæ trifidæ, Gordon Amer. bor.

98. Phyllosticta campanulina Moesz, Gomb. Budapest, I (1909) t. II, 6199 f. 9 (Bot. Közlem.) p. 18. — Maculis variis, 1-5 mm. diam., sor-

dide albicantibus, rubiginoso marginatis; pycnidiis centro macularum insidentibus, gregariis, punctiformibus, epiphyllis, epidermide tectis, dein erumpentibus, globosis, epapillatis, 70-100  $\mu$ . diam., contextu membranaceo, parenchymatico, fuligineo; sporulis cylindraceis, anguste ellipsoideis v. panduriformibus,  $4.5 \times 1.5$ , hyalinis, eguttulatis.

Hab. in pagina superiore foliorum vivorum Campanulæ persicifoliæ prope Budapest Hungariæ.

99. Phyllosticta Rehmi Bubák, Beitr. Pilzfl. Ung., in Növénytani 6200 Közlemények (1907) Heft 4, Extr. p. 26. — Maculis nullis; pycnidiis epiphyllis sparsis, sæpe nervos sequentibus, pallide brunneis, globosis, 80-120 μ. latis, in mesophyllo immersis, contextu parenchymatico pallido v. brunneolo; sporulis breviter cylindraceis, 4,5-9 × 2-3,5, rectis v. curvulis, apice rotundatis guttulatis; sporophoris hyalinis, breviter papilliformibus.

Hab. in foliis vivis Campanulæ Trachelii in Csernatale prope Herkulesfürdö Hungaria. — A ceteris 4 speciebus in Campanula vigentibus distincta.

100. Phyllosticta veraltiana C. Mass. ap. Sacc, in Ann. Mycol (1911) 6201 p. 251. — Maculis versiformibus, amphigenis, sordide albis, 5-6 mm. diam. subinde confluentibus, linea fusca cinctis; pycnidiis membranaceis nigris, globoso-lenticularibus, 100-150 μ. diam., epiphyllis; sporulis ovoideis, 3-5 × 2-2,5, hyalinis, plerumque biguttatis.

Hab. in foliis languentibus Campanulæ Trachelii prope S. Marco di Saline, loco Veralta agri Veronensis, Ital. bor. (Massalongo). — A Ph. Campanulæ satis distincta.

101. Phyllosticta Asperulæ (Lasch?) D. Sacc., in Atti Soc. Ven. Trent. 6202 (1897) p. 22, t. 5, f. 6, ? Depazea Asperulæ Lasch — Syll. III, p. 63. — Toto folio arescendo brunnescente; pycnidiis subsparsis, lentiformibus, perexiguis, 60-90 μ. diam., poro pertusis; sporulis perexiguis ellipsoideo-oblongis, 3-4 × 0,5, subrectis, hyalinis.

Hab. in foliis Asperulæ odoratæ in M. Holik pr. Schemnitz Hungariæ (Ab. A. KMET).

102. Phyllosticta Usteri Speg., Fungi Paulist., Rev. Mus. La Plata 6203 (1908) t. XV, f. 34. — Maculis primo orbicularibus 3-5 mm. diam. dein confluendo difformibus ac sæpe totum folium occupantibus, ad hypophyllum levibus nitidulis sordide testaceis, ad epiphyllum centro sordide cinerascentibus ambitu pallidioribus v. subpurpurascentibus, non v. vix circinatim rugulosis, linea angustissima cal-

losa, ad hypophyllum præcipue elevatis, abrupte limitatis; pycnidiis epiphyllis sparsis v. laxe gregariis, epidermide tectis, prominulis depressis, 50-90 µ. diam., membranaceis, contextu parum distincto parenchymatico fuligineo; sporulis rectis v. leniter inæquilateralibus, utrinque acutiuscule rotundatis, 4-6 × 1,5-2, eguttulatis, hyalinis.

Hab. ad folia languida Coffee arabice in Horto Schole Po-

lythecnicæ, Sao Paulo Brasilia (USTERI).

103. Phyllosticta Cinchonæ Koord., Botan. Untersuch. (1907) p. 203, 6204 fig. 24. — Maculis sinuosis variis, arescendo ochraceis, haud marginatis, 5 mm. c. latis; pycnidiis globoso-lenticularibus, laxiuscule gregariis, c. 120 μ. diam., poro pertusis; sporulis cylindraceis, hyalinis, 8-10 × 3,25.

Hab. in foliis Cinchonæ sp. in Gunung Sendoro prope Ang-

grong-Gondok prov. Kedu Java (Koorders).

104. Phyllosticta kalmicola (Schw.) Ell. et Ev. — Syll. XI, p. 475 6205 var. berolinensiformis Fairm., Ann. Mycol. (1910) p. 324. — Maculis foliicolis, irregularibus, purpureo-cinctis, epidermide albobullosa elevata, brunneis v. rubris; pycnidiis minutis, sparsis vel gregariis, atris; sporulis oblongo-cylindraceis, utrinque rotundatis, hyalinis, 6-8 × 3.

Hab. in foliis vivis Kalmiæ latifoliæ cultæ, Lyndonville New York Amer. bor.

105. Phyllosticta Rhododendri-flavi Bub. et Kab. Hedwigia L (1909) 6206 p. 38. — Maculis utrinque conspicuis, ad 2 cm. lat., circularibus v. circulari-inæqualibus, læte rubro-brunneis, dein atro-purpureo-brunneis, postremo expallentibus interdum concentrice zonatis, non v. obsolete discolori-limbatis; pycnidiis epiphyllis, sparsis, globosis, 120-150 μ. diam., subcuticularibus, dein erumpentibus, contextu læte brunneo, parenchymatico; sporulis breve ellipsoideis v. ovoideis, rectis curvulisve, 6-9,5 ≈ 3-3,5, utrinque rotundatis, hyalinis; sporophoris cylindraceis sursum tenuatis, 8-12 μ. long., hyalinis.

Hab. in foliis vivis Rhododendri flavi culti, Turnau. Bohemiæ. — A ceteris speciebus rhododendricolis diversa.

106. Phyllosticta putrefaciens Shear, Bull. Torr. Bot. Club XXXIV 6207 (1907) pag. 307. — Pycnidiis gregariis, immersis v. subglobosis, membranaceis, obscure brunneis v. subnigris, ostiolatis, 75-100 μ. diam.; ostiolo conspicuo, margine leniter elevato subirregulari circumdato; sporulis forma variabilibus, ovoideis v. ovoideo-ellipsoi-

deis, quandoque inæquilateris vel subcurvulis, continuis, hyalinis v. in massa tenuiter flavidis, 3,5-5 > 2,5-3; sporophoris simplicibus brevissimis.

Hab. in foliis emortuis Vaccinii macrocarpi, Amer. bor. 6208
107. Phyllosticta erythræa Bacc., Funghi d. colonia Eritr., Ann. Bot.
v. IV (1906) p. 276. — Maculis amphigenis, arescentibus, nigrocinctis; pycnidiis minutis, lenticularibus, parenchymate immersis; sporulis ovatis, minutis, 8 × 6.

Hab. in foliis Diospyri mespilifolii, Monte Fegherat alt. m. 2000-2500, Erythræa Africæ.

108. Phyllosticta trapezuntica Bubák in Handel-Mazzetti, Bot. Reis. 6209 Pont. Randgeb. in Ann. Naturhist. Hofmus. Wien (1909) XXII, p. 104. — Pyenidiis rotundatis v. irregularibus, sæpe confluentibus, evolutis, epiphyllis, sparsis, atris, opacis, 100-150 μ. diam., contextu densissimo, parenchymatico, atro-brunneo, poro magno, irregulari, centro pertusis; sporulis 4-4,5 × 2-2,5, breviter bacillaribus, rectis v. curvulis, utrinque rotundatis, ibidem 2-guttulatis, hyalinis; basidiis latis, papilliformibus, apice rotundatis, longitudine sporulas æquantibus v. eas superantibus.

Hab. in phytoptocecidis foliicolis [an potius dipterocecidis?] Phillyreæ Vilmorinianæ in montibus Ponticis Anatoliæ (Blumencron). — Phyll. phillyrinæ proxima sed differt sporulis minoribus, hyalinis nec chlorinis.

109. Phyllosticta Oleæ Petri, in Atti R. Accad. Linc. XVIII, 2 (1909) 6210 p. 636, c. icon. — Maculis amphigenis circularibus, 1 mm. circ. diam., initio ochraceis, dein albescentibus, annulo fusco cinctis; pycnidiis epiphyllis, sparsis, paucis, globosis, punctiformibus, atris, 60-80 μ. diam.; sporulis bacillaribus, hyalinis, 2,5-3 × 0,3-0,4.

Hab. in foliis vivis juvenilibus Oleæ europææ prope Terni, Frosinone, Lazio et in prov. Siena, Toscana.

110. Phyllosticta ambigua Scalia, Sul seccume del Frassino da Manna, 6211 Catania (1909) p. 13. — Maculis amphigenis, sparsis v. confluentibus, irregularibus, in epiphyllo arescendo dealbatis, in hypophyllo fuscidulis; pycnidiis epiphyllis sparsis, profunde immersis, ostiolo vix prominulo, globosis v. globoso-conicis; contextu tenuissimo, parenchymatico, subchlorino, circa ostiolum atro-fuligineo; sporulis copiosissimis, ellipsoideis, 4-5 × 2,5-3, minute guttulatis, hyalinis.

Hab. in maculis exaridis albidis foliorum Fraxini Orni, socio Cylindrosporio Orni (Pass.) Pegl. in Horto Bot. Cagliari, Sardegna (Fr. CAVARA).

111. Phyllosticta Orni Bubák, Beitr. Pilzfl. Ung., in Novénytani 6212 Közlemények (1907) Heft 4, Extr. pag. 26. — Maculis foliicolis sparsis, rotundatis v. ellipsoideis, flavo-coriaceis, anguste brunneo marginatis; pycnidiis numerosis, gregariis, sæpe confertis, globosis v. parum depressis, nigris, hemisphærice prominentibus, in mesophyllo immersis, epidermidem pustulatam efficientibus, poro papilliformi erumpentibus, 60-100 p. diam., contextu indistincte parenchymatico præditis; sporulis ex ovoideo ellipsoideis, 4-7 × 3-4,5, rectis, utrinque rotundatis, nonnullis pallide brunneo-olivaceis, in massa brunneis, eguttulatis; sporophoris brevibus, papilliformibus.

Hab. in foliis vivis Fraxini Orni in M. Domugled prope Herkulesfürdő Hungariæ. — Ad subgen. Phyllostictella pertinet.

112. Phyllosticta nicotianicola Speg. Myc. Argent. V, pag. 336, in 6213 An. Mus. Buenos Aires XX (1910). — Maculis amphigenis determinatis exareolatis plus minusve cinerescentibus, 1-10 mm. diam., centro demum albicantibus; pycnidiis epiphyllis innatis, subsparsis, lenticularibus, 75-80 p. diam., tenuissime membranaceis, contextu vix perspicuo atro-olivaceo, ostiolo rotundo minuto pertuso; sporulis subcylindraceis, eguttulatis, utrinque obtusulis, 6-10 × 2, hyalinis.

Hab. ad folia viva Nicotian a acutiflor a in herbosis, En-

senada pr. La Plata, Argentina.

113. Phyllosticta humerispora Speg., Fungi Paulist, Rev. Mus. La 6214 Plata t. XV (1908) p. 33. — Maculis sæpius epiphyllis repando-orbicularibus 0,5-2 mm. d., convexo-prominulis, areola angustissima fusco-violascente sublimitatis, cinereis, sæpe confluentibus; pycnidiis lenticularibus 90-120 p. diam., innato-prominulis, solitariis vel pauci-gregariis, glabris, ostiolo minuto, olivaceis; sporulis bacillaribus, sæpius rectiusculis, 14-16 × 1,5-2, non vel grosse guttulatis, hyalinis.

Hab. ad folia languida arbusculæ cujusdam (Cestrum?) in Horto bot. Sao Paulo Brasilia (USTERI). — Species a Ph. ulnispora Speg. (Ph. osteospora Speg., nec Sacc.) longissime recedens

neque comparanda.

114. Phyllosticta Himeranthi Speg., Myc. Argent. V, p. 335, in An. 6215 Mus. Buenos Aires XX (1910). — Maculis orbicularibus determinatis, albescenti-subrufescentibus, exareolatis, 3-10 mm. diam.; pycnidiis epiphyllis numerosis innatis, atris, tenuissime membranaceis, sublenticularibus, 80-90 μ. diam., ostiolo pro ratione maximo

25-30  $\mu$ . diam. pertusis; contextu dense minuteque parenchymatico olivaceo-fuligineo; sporulis rectis v. lenissime inæquilateris, utrinque rotundatis,  $5 \times 1,5-2$ , hyalinis.

Hab. ad folia viva v. languida Himeranthi runcinati ad viarum latera La Plata Argentinæ.

115. Phyllosticta Gratiolæ Hollós, Ann. Mus. Nat. Hung. VIII (1910) 6216 p. 2. — Maculis ochraceis, apicem foliorum occupantibus; pycnidiis epiphyllis, gregariis, lenticularibus, ochraceis, poro pertusis, 70-90 μ. diam., contextu celluloso; sporulis cylindraceis, utrinque obtuse rotundatis, eguttulatis, dilute flavidulis, 8-9 × 1,5-2.

Hab. in foliis languidis Gratiolæ officinalis pr. Kecskemét Hungariæ.

116. Phyllosticta Calceolariæ Speg., Mycet. Argent. V, p. 331, in 6217 An. Mus. Buenos Aires XX (1910). — Maculis amphigenis, pusillis, elliptico-repandulis, determinatis, candidis, 1–3 mm. diam., areola angusta subferruginea cinctis; pycnidiis epiphyllis, paucis, lenticularibus, epidermide velatis, 80-90 μ. diam., contextu minute parenchymatico fuligineo, ostiolo 15 μ. diam. pertuso; sporulis subcylindraceis hyalinis, utrinque rotundatis, 4–5 × 1, rectis v. lenissime inæquilateris.

Hab. ad folia languida Calceolariæ foliosæ in montanis pr. Tucuman, Argentina (C. Bruch).

117. Phyllosticta Scrophulariæ-bosniacæ Bubák, Bull. Herb. Boiss. 6218 2 sér. VI (1906) pag. 406. — Maculis irregulariter rotundatis v. ellipsoideis, 2-4 mm. latis, brunneo-alutaceis, subconcentricis, tenuiter brunneo-marginatis, extus subareolatis; pycnidiis epiphyllis, sparsis, 90-130 μ. latis, depressis, flavo-ochraceis, ostiolatis, contextu tenui grosse parenchymatico; sporulis ex elongato fusoideis, 6,5-11 × 3-3,5, utrinque rotundatis v. angustatis, guttulatis, hyalinis, unilocularibus.

Hab. in foliis vivis Scrophulariæ bosniacæ prope Njegus Montenegro.

118. Phyllosticta banatica Bubák, Beitr. Pilzfl. Ung. in Növénytani 6219 Közlemények (1907) Heft 4. Extr. p. 23. — Maculis epiphyllis magnis, infra tenuissimis, irregularibus, opace virentibus, extus brunnescentibus et brunneo-marginatis; pycnidiis epiphyllis sparsis v. hinc inde gregariis, subglobosis v. leniter depressis, siccis collabescentibus, epidermide tectis, 100-230 μ. diam., flavo-ochraceis, parietibus tenuibus 6-8 μ. cr. præditis, contextu grosse parenchymatico, poro papilliformi præditis; sporulis bacillaribus v.

elongatis, 3-4,5 × 1,5-2, rectis v. curvulis, apice rotundatis, guttulatis, hyalinis; sporophoris papilliformibus, flavidulis.

Hab. in foliis vivis Verbasci banatici, Csernatal pr. Herkulesfürdö Hungarie. — A Ph. Verbasci Sace. maculis, sporularum formâ et magnitudine diversa.

119. Phyllosticta Bridgesii Speg., Fungi Chilenses (1910) p. 140. — 6220 Maculis amphigenis albescentibus subindeterminatis irregulariter subrotundis, 2-10 mm. diam.; pycnidiis epiphyllis laxe gregariis innato-erumpentibus minute ostiolatis, membranaceis, lenticularibus, 90 µ. diam.; sporulis subcylindraceis, utrinque rotundatis, 4-5 × 1, hyalinis.

Hab. in foliis vivis Lobeliæ Bridgesii in pratis prope Bahia de Corral, Chile, Amer. austr.

120. Phyllosticta Vandæ Namyslowski, Kosmos XXXIII (1908) 6221 pag. 329. — Pycnidiis dense sparsis, punctiformibus, minutis, nigris, sphæroideis, 60-80 μ. diam., epiphyllis; sporulis hyalinis, bacillaribus, rectis, 3-4 μ. longis, numerosissimis.

Hab. in foliis vivis Dipsaci silvestris prope Zagórzany Poloniæ, Galicia. — A Phyll. Dipsaci videtur diversa.

121. Phyllosticta prousticola Speg., Fungi Chilenses (1910) p. 139. 6222
— Maculis repando-orbicularibus, irregulariter rotundatis, 5-20 mm. diam., amphigenis, tabacinis, ambitu obscurioribus, determinatis; pycnidiis epiphyllis innato-erumpentibus, subglobosis, 75-80 μ. diam., ostiolatis, coriacellis, atris; sporulis elongato-ellipsoideis, 4-5 × 1,5-2, quandoque biguttulatis, hyalinis.

Hab. in foliis vivis Proustiæ pirifoliæ, Cerro Caracol de Concepción Chile Amer. austr.

122. Phyllosticta Proustiæ Speg., Myc. Argent. V, p. 338, in An. 6223 Mus. Buenos Aires XX (1910). — Maculis amphigenis indeterminatis, leniter fuscescentibus, confluendo difformibus, 3-15 mm. diam.; pycnidiis confertis, amphigenis, innatis, 75-80 μ. diam., lenticularibus, velatis, obsolete ostiolatis, contextu parenchymatico olivaceo; sporulis linearibus, apicibus sæpe lenissime incrassatis obtusisque, 5-7 × 1,5, eguttulatis, hyalinis.

Hab. in foliis vivis Proustiæ ilicifoliæ in dumetis prope Cacheuta, Mendoza, Argentina.

123. Phyllosticta Pitcheriana Fairm., Ann. Mycol. VIII, (1910) p. 324. 6224 — Maculis brunneis, primo purpureo-cinctis, rotundatis v. irregularibus; pycnidiis minutis, sparsis, epiphyllis; sporulis oblongo-cylindraceis, utrinque rotundatis, continuis, hyalinis, 6-7 ≈ 3-4.

Hab. in foliis vivis Heliopsidis Pitcherianæ cultæ, Lyndonville, New York, Amer. bor.

124. Phyllosticta Garrettii Syd., Ann. Myc. VI (1908) p. 484. — Ma-6225 culis amphigenis, orbicularibus, usque ad 1 cm. diam., flavidis, medio dein arescentibus; pycnidiis amphigenis, punctiformibus, gregariis, nitidis, globosis, 60-100 μ. diam., poro rotundo lato pertusis; sporulis cylindraceis, continuis, eguttulatis, 3-4 × 1.

Hab. in foliis Senecionis disparis, Big Cottonwood Canyon, Utah Amer. bor. (A. O. GARRETT).

125. Phyllosticta eupatoricola Kab. et Bub., Myc. Beitr., Hedwigia 6226 Bd. XLVI (1907) p. 288. — Maculis epiphyllis sparsis, irregularibus, nervis limitatis, subpolygoniis, 2-4 mm. latis, sæpe confluentibus, sordide obscure brunneis; pycnidiis epiphyllis, immersis, globosis, parum depressis, epidermide tectis, dein apiculo subconico erumpentibus, crebris, confluentibus, 50-85 μ. diam., brunneis, diu clausis, demum apice apertis, contextu parenchymatico pallide brunneo; sporulis bacillaribus, 3-4 × 1-1,5, rectis v. curvulis, utrinque rotundatis, subincrassatis, biguttulatis.

Hab. in foliis Eupatorii cannabini prope Turnau Bohemiæ (KABAT). — A Ph. eupatorina et Ph. Eupatorii forma et magnitudine sporarum distincta.

126. Phyllosticta Asterisci Speg., Fungi Chilenses (1910) p. 137. — 6227 Maculis amphigenis rotundatis, 3-8 mm. diam., subdeterminatis, fuscis; pycnidiis amphigenis minutis lenticularibus, 50-60 μ. diam., epidermide tectis, ostiolatis, obscuris, membranaceis; sporulis ellipsoideis, hyalinis, 3-5 × 1,5-2.

Hab. in foliis vivis Asterisci chilensis, Cerro Caracol de Concepcion, Chile, Amer. austr.

127. Phyllosticta Arnicæ (Fuck.) Sacc. — Syll. III, p. 45. — Huc 6228 verisimillime ducendum est *Coniosporium Arnicæ* Lib. in Pl. crypt. Ardenn. exs. n. 382. Cfr. Sacc. Funghi delle Ardenne in Malp. I (1888) p. 14 (extr.).

128. Phyllosticta doronicella R. Maire ad int., Champ. Asie Mineure, 6229 Bull. Soc. Sc. d. Nancy (1906), Extr. pag. 7. — Maculis nigris, valde limitatis, hypophyllis; pycnidiis globosis, atro-brunneis, apice pertusis, epapillatis; sporophoris brevibus, hyalinis; sporulis hyalinis, ovoideis v. cylindraceis, levibus, 5 ≈ 1; mycelii membrana crassa intus brunnea extus pallidiore; peritheciis immaturis concomitantibus.

Hab in foliis vivis v. languidis Doronici Thirkei, in M.

Olympo Bithynico 1700 m. alt. Anatolia.

129. Phyllosticta doronicigena Bubák, Beitr. Pilzfl. Ung., in Növé-6230 nytani Közlemények (1907) Heft 4, Extr. p. 23. — Pycnidiis globosis, subepidermicis, dein erumpentibus et ostiolo conoideo prominentibus, nigris, 90-120 μ. latis, confertis, contextu nigrescente; sporulis bacillaribus, 3-4,5 × 1, rectis, biguttulatis; sporophoris conoideo-papilliformibus, minutis, flavidis.

Hab. in foliis vivis Doronici cordati in Suskuluj prope
 Herkulesfürdö Hungariæ. — In superficie plagularum Fusicladii

Aronici (Fuck.) Sacc.

130. Phyllosticta flourensiicola Speg., Fungi Chilenses (1910) p. 137. 6231 — Maculis amphigenis plus v. minus rotundatis, 1-7 mm. diam., cinerescenti-arescentibus determinatis, areola angusta subpurpurascenti cinctis; pycnidiis gregariis, innato-erumpentibus, membranaceis, ostiolatis, lenticularibns, 60-75 μ. diam., nigrescentibus; sporulis ellipsoideis v. ovoideis non v. 2-guttulatis, hyalinis, 2-4 × 1.5-3.

Hab. in foliis Flourensiæ thuriferæ, Cerro Caracol de

Concepcion, Chile, Amer. austr.

131. Phyllosticta Mulgedii Davis, Trans. Wiscons. Ac. of Sc. XVI, Pt. 6232 II (1909) p. 761. — Maculis irregularibus, obscure brunneis, immarginatis, 1-3 cm. diam.; pycnidiis epiphyllis, inconspicuis, sparsis, brunneis, globosis, 75-100 μ.; sporulis hyalinis, ellipsoideo-oblongis v. globosis, 3-7 × 3, plerumque biguttulatis et demum probabiliter septatis.

Hab. in foliis Lactucæ leucophææ, Racine Amer. bor.

132. Phyllosticta Taraxaci Hollós, Ann. Mus. Nat. Hung. V (1907) 6283 p. 456. — Maculis irregularibus, cinereis, nigro-cinctis; pycnidiis epiphyllis sparsis, lenticularibus, brunneis, poro pertusis, 80-90 μ. diam., contextu parenchymatico; sporulis ellipsoideis, biguttulatis, continuis, dilute ochraceis, 5-6 × 1,5-2.

Hab. in foliis vivis Taraxaci officinalis prope Kecskemét Hungariæ.

- 183. Phyllosticta Tassiana Sacc. et Trav. Syll. XX, pag. 389 6234
  Ita dicatur Phyll. Aristolochice Tassi (1896) Syll. XIV, p. 860
   non Ph. Aristolochice Mass. (1888).
- 134. Phyllosticta Aristolochiæ Mass. in Bull. Soc. Bot. ital. XX (1888) 6285 pag. 439, fig. II. Maculis et pyenidiis non descriptis; sporulis oblongis v. teretiusculis v. ovoideis, 2-3-guttulatis, hyalinis, in-

terdum curvulis,  $4-8 \approx 2,5-3,5$ , germinando saccharomycetiformibus.

Hab. in foliis Aristolochiæ Clematitis in agro Veronensi Italiæ bor.

135. Phyllosticta Asclepiadearum West. — Syll. III, p. 52. — var. 6286 minor Rota-Rossi, Atti R. Ist. Bot. Pavia ser. II, v. IX (1905) p. 12. — A typo differt pyenidiis punctiformibus 80 μ. diam.; sporulis minimis botuliformibus, 3-5 × 1.

Hab. in foliis Cynanchi Vincetoxici, Palazzago Bergamo Italia bor.

136. Phyllosticta dimorphospora Speg., Mycet. Argent. V, p. 334, in 6237 An. Mus. Buenos Aires XX (1910). — Maculis amphigenis orbicularibus pallescentibus, subindeterminatis, bullosis, 3-10 mm. d.; pycnidiis epiphyllis, innato-erumpentibus, nigris, laxe gregariis, membranaceis, subastomis, 90-100 μ. diam., contextu rufescente indistincto; sporulis in eodem pycnidio biformibus, alteris majusculis 16-20 × 4, alteris minimis, 3-4 × 1,5, omnibus subcylindraceis, eguttulatis, hyalinis.

Hab. copiose ad folia viva Chenopodii hircini in ruderatis prope La Plata Argentinæ.

137. Phyllosticta Spinaciæ A. Zimmermann in Verhandl. naturf. 6288 Ver. Brünn XLVII (1908-1909) p. 30, t. I, f. 6 (extr.). — Maculis magnis sæpe maximam partem foliorum occupantibus, flaveolis; pycnidiis epiphyllis, sparsis aut secundum nervos dispositis, prominentibus, globosis, nigris, pertusis, 150-170 μ. diam.; sporulis cylindraceis vel ovoideis, sæpe irregularibus, 5-6 × 3-4, decoloribus, interdum guttulatis.

Hab. in foliis vivis Spinaciæ oleraceæ cultæ prope Eisgrub Austriæ.

138. Phyllosticta atriplicicola Speg., Mycet. Argent. V, p. 330, in 6289 An. Mus. Buenos Aires, XX (1910). — Maculis orbicularibus, amphigenis determinatis, subcinerescentibus, eximie determinatis, 3-6 mm. diam.; pycnidiis epiphyllis sublenticularibus, 75-80 μ. diam., innato-erumpentibus, minute ostiolato-pertusis; contextu parenchymatico denso, olivaceo; sporulis elliptico-cylindraceis, pusillis, eguttulatis, 5-8 ≈ 3, hyalinis, utrinque obtusis.

Hab. ad folia viva v. languida Atriplicis hastatæ prope La Plata, Argentina.

139. Phyllosticta Rivinæ Speg., Myc. Argent. V, pag. 339, in An. 6240. Mus. Buenos Aires, XX (1910). — Maculis orbicularibus, determi-

natis, albicantibus, areola diffusa subpurpurascente cinctis, 5-10 mm. diam.; pycnidiis epiphyllis, subepidermicis, lenticularibus, 60-80  $\mu$ . diam., contextu tenui, minute parenchymatico, fuligineo, ostiolo parvo rotundo; sporulis elongato-ellipsoideis, subacutiuscule rotundatis, 4-6  $\approx$  1,5, sæpius grosse 2-guttulatis, hyalinis, in sporophoris filiformibus, 20  $\approx$  1 acrogenis.

Hab. ad folia viva Rivinæ levis in dumetis Metán Salta,

Argentina.

140. Phyllosticta? Boërhaviæ Speg., Mycet. Arg. V, p. 330, in An. 6241 Mus. Buenos Aires XX (1910), — Maculis amphigenis, orbicularibus, albescentibus, areola livescente cinctis, 1-3 mm. diam.; pycnidiis epiphyllis. late ostiolato-pertusis, atris, 100-150 μ. diam., contextu parum distincte parenchymatico, olivaceo, ostiolo 20 μ. diam.; sporulis superne rotundatis, obovato-subclavulatis, continuis v. diblastis, 8-11 ≈ 3, hyalinis.

Hab. ad folia viva Boërhaviæ pulchellæ in pratis prope

Jujuy, Argentina.

141. Phyllosticta Tricoclæ Speg., Myc. Argent. V, pag. 340, in An. 6242 Mus. Buenos Aires, XX (1910). — Pycnidiis hinc inde dense gregariis, amphigenis v. hypophyllis, atris, subepidermicis, sublenticularibus, 75-120 μ. diam., folia tota cinerescentia arescendo efficientibus; ostiolo impresso mediocri, pertuso; contextu parenchymatico olivaceo; sporulis cylindraceis minimis, eguttulatis, lenissime inæquilateris, hyalinis, 2-5 × 1.

Hab. ad folia languida Tricyclæ spinosæ in montanis Ca-

cheuta pr. Mendoza, Argentina.

142. Phyllosticta? Artocarpi Speg. Mycet. Arg. V, p. 330, in An. 6243 Mus. Buenos Aires XX (1910). — Maculis amphigenis orbicularibus determinatis, albidis, margine latiusculo atro cinctis, 5-10 mm. diam.; pycnidiis innato-erumpentibus, epiphyllis, minutis, atris, 80-100 μ. diam., ostiolo lato obsoleto impresso pertusis; contextu indistincto, fuligineo, superne subincompleto; sporulis ellipsoideis, non v. leniter obovatis, submediocribus, grosse 1-guttulatis, 12-14 × 5-6, hyalinis.

Hab. ad folia viva Artocarpi integrifoliæ in horto San

Lorenzo, Salta Argentinæ. — Ad Glæosporium vergit.

143. Phyllosticta Acanthosyridis Speg., Myc. Arg. V, p. 329, in An. 6244 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis albescentibus, subdeterminatis, 3-7 mm. diam.; pycnidis epiphyllis, sparsis, innato-erumpentibus, atris, pusillis, 90-120 p. diam., sub-

lenticularibus, contextu minute parenchymatico, fuligineo; sporulis elliptico-subcylindraceis, utrinque acutiusculis, leniter inæquilateralibus, minute biguttulatis, 8-10 × 2,5-3, hyalinis.

Hab. ad folia viva Acanthosyridis falcatæ, Rio Caimancito, Salta, Argentina.

144. Phyllosticta Talæ Speg., Myc. Argent. V. p. 340, in An. Mus. 6245 Buenos Aires, XX (1910). — Maculis amphigenis orbicularibus subdeterminatis exareolatis, subcinerescentibus, 5-15 mm. diam., sæpe lineis v. rugulis tenuissimis concentricis notatis; pycnidiis epiphyllis subepidermico-erumpentibus, lenticularibus, 80-90 μ. d., ostiolo latiusculo, 15 µ. diam. pertusis, contextu subolivaceo parenchymatico: sporulis ellipsoideis utrinque obtusiusculis, 5-8 v 2,5-3, biguttulatis, hyalinis.

Hab. ad folia viva v. languida Celtidis Talæ in silva Santa Catalina, Buenos Aires, Argentina.

145. Phyllosticta immersa Bubák, Beitr. Pilzfl. Ung., in Novénytani 6246 Közlemények (1907) Heft 4, Extr. pag. 25. - Maculis foliicolis utrinque visibilibus, rotundato-sinuatis, parvis, 1-3 mm. diam., indistincte limitatis, primum viridibus demum arescendo alutaceis, sparsis; pycnidiis sparsis, in mesophyllo immersis, epidermidem pustulatam efficientibus, globosis, 80-120 p. latis, brunneis, contextu parenchymatico, pallide brunneo, poro minuto obscuriore papilliformi prominentibus; sporulis ex ellipsoideo elongatis, 4,5-7,5 × 3-4,5, utrinque rotundatis, olivaceo-brunneis.

Hab. in foliis vivis Celtidis australis prope Báziás Hungariæ. - Ph. destruens Desm. et Ph. celtidicola Bub. in Celtide vigentibus omnino diversæ. Ad subgenus Phyllostictella pertinet.

146. Phyllosticta celtidicola Bub. et Kab., Sechst. Beitr. Pilzfl. Tir. 6247 in Ann. Myc. V (1907) p. 42. - Maculis amphigenis varie angulosis v. plerumque irregularibus, folium plus minusve obtegentibus, ochraceis, alutaceis v. pallide brunneis, non marginatis, sæpe confluentibus, arescendo dissilientibus; pycnidiis amphigenis, sparsis v. gregariis, immersis, epidermide tectis, poro minuto rotundato apertis, globoso-depressis, 80-120 µ. diam., e brunneo obscure brunneis, contextu parenchymatico firmo; sporulis ellipsoideis v. ovoideis 6-8 × 3-4,5, hyalinis.

Hab. in foliis vivis Celtidis australis, prope Ponte Alto prope Tridentum Austriæ. - Socia Stigmella Celtidis. - A Ph. destruenti sporulis diversa.

147. Phyllosticta guevinicola Speg., Fungi Chilenses (1910) p. 139. 6248

- Maculis orbicularibus v. repando-difformibus, 5-20 mm. diam., amphigenis, superne cinerescentibus inferne subtabacinis determinatis, linea callosa elevata fuscula cinctis; pycnidiis epiphyllis sparsis v. hinc inde pauci-gregariis, subglobosis, 75-90 p. diam., atris, coriaceis; sporulis cylindraceis, rectis v. curvulis, 5-8 × 1-1,25, hyalinis.

Hab, in foliis vivis Guevinæ Avellanæ in silvis prope

Bahia de Corral, Chile, Amer. austr.

148. Phyllosticta ambiguella Sacc., Ph. ambigua Sacc. in Ann Mycol. 6249 X (1912) p. 317, nec Scalia (1909). — Maculis amplis ex oblongo irregularibus, epiphyllis, superne albis, inferne pallide alutuceis, margine angustissimo rufulo cinctis, 3-6 cm. long.; pycnidiis epiphyllis, dense gregariis, subcutaneo-erumpentibus, depresse globosis, 90-150 u. diam., poro lato impresso pertusis; sporulis oblongo-fusoideis, utrinque acutiusculis, 8 × 2,5, hyalinis, subrectis, utrinque minute guttulatis; sporophoris dense fasciculatis, bacillaribus, inæquilongis,  $10-20 \approx 2.5$ , hyalinis.

Hab. in foliis languidis Fici rubiginose v. affinis in Horto bot. Patavino, Ital. bor. — Maculæ et pycnidia Phyllostictæ, fru-

ctificatio vero potius *Phomopsidis*.

149. Phyllosticta Elasticæ Koord., Botan. Untersuch. (1907) p. 203. 6250 - Maculis vagis v. nullis; pycnidiis epiphyllis, epidermide tectis, globulosis, subcarbonaceis, gregariis v. sparsis, poro circulari pertusis, 50-150 μ. diam., glabris; sporulis ovoideis v. oblongis, 2,5 ≥ 1,5-1,75, continuis, hyalinis, sporophoris inconspicuis.

Hab. in foliis siccis emortuis Fici elasticæ prope Loano

prov. Kedu, Java (Koorders).

150. Phyllosticta convexula Bubák, Journ. of Mycol. XII (1906) 6251 p. 52. — Maculis brunneolis, indeterminatis v. nullis; pycnidiis hypophyllis primum subepidermicis dein apice conoideo prominentibus, globosis, parum depressis, demum late apertis, 60-100 u. latis, nigris, contextu indistincto parenchymatico flavo-brunneo. basi obscuriore; sporulis bacillaribus 1,5-2 × 1, hyalinis; sporophoris hyalinis cylindraceis.

Hab. in foliis Caryæ tomentosæ, Missouri Emma Salina Co. Amer. bor. (C. H. Demetrio). — Socia Sphærella convexula (Schw.) Thüm.

151. Phyllosticta Broussonetiæ Trav. et Migliardi, Flora micol. prov. 6252 Venezia, p. 11 (1911). — Maculis per totum foliorum marginem plerumque expansis, irregularibus, 1/2-1 cm. latis, exaridis, albido-

cremeis, tenuiter hinc inde lateritio-marginatis, fragilibus; pycnidiis epiphyllis, dense sparsis, punctiformibus, nigris, erumpentibus, globoso-depressis, 200-300  $\mu$ . diam., distincte et minute ostiolatopapillatis, contextu pseudoparenchymatico nigricante; sporulis cylindraceo-ellipsoideis, rectis, rarius leniter curvulis, continuis, hyalinis, haud raro 2-guttulatis,  $8-12 \approx 2^4/-3$ ; sporophoris non visis.

Hab. in foliis vivis Broussonetiæ papyriferæ prope S. Elisabetta di Lido, Venetiis, Ital. bor.

152. Phyllosticta Langarum Ferr., Malpighia XX (1906) p. 146. — 6253 — Maculis candidis, brunneo-marginatis, irregulariter rotundatis, 4-8 mm. diam.; pycnidiis minutis, sparsis, membranaceis, poro magno, rotundato pertusis, 140-190 μ. diam.; sporulis hyalinis, cylindrico-rotundatis, 6-7 × 3-3,5, eguttulatis.

Hab. in foliis Mori albæ, Alba in Pedemontio. — Ph. moricolæ proxima, a qua differt pycnidiis majoribus et colore macularum.

153. Phyllosticta consors Saccardo, Microm. Amer. novi, Journ. of 6254 Myc. v. XII (1906) p. 51. — Pycnidiis hypophyllis, raro et epiphyllis, in maculis *Phleospora Mori* hinc inde dense aggregatis, globulosis, prominulis, 70-80 μ. diam., ostiolo exiguo impresso; sporulis ellipsoideo-oblongis, sæpe curvulis, 4-4,5 × 2-2,1, hyalinis, minutissime 2-guttulatis.

Hab. in maculis ochraceo-brunneis Phleosporæ Mori, ad folia Mori albæ cultæ, Tenancingo, Mexico (Bonansea).

154. Phyllosticta Quercus-cocciferæ Bubák, Bull. Herb. Boiss. 2 sér. 6255 VI (1906) p. 405. — Maculis rotundatis v. irregulariter angulosis, 2-4 mm. latis, albis, arescendo subpellucidis, tenuiter purpureo-brunneo-marginatis; pycnidiis subepidermicis, demum erumpentibus, globosis v. subdepressis, 180-350 μ. latis, contextu crasso, infra castaneo-brunneo supra nigrescente, minute parenchymatico; sporulis breviter cylindraceis, elongatis v. fusoideis, 5-7,5 mm. longis, 2-2,5 μ. cr., apice rotundatis v. tenuiter angustatis, guttulatis, leniter viridulis; sporophoris cylindraceis 8-10 × 2-2,5.

Hab. in foliis vivis senioribus Quercus cocciferæ prope Ulcinj Montenegro.

155. Phyllosticta phæospora Scalia ap. Lopriore Rass. fitopatol. in 6256 Boll. Minist. Agric. VIII, vol. II (1909) p. 12 (extr.). — Maculis exaridis, albidis, sparsis v. raro confluentibus, irregularibus; pycnidiis profunde immersis, globosis, ostiolo conico, atro, erum-

pente, 100-110  $\mu$ . diam.; contextu tenui, parenchymatico, subolivaceo; sporulis ovoideis, 4-5  $\approx$  3-3,5, chlorino-fuscidulis.

Hab. in foliis Quercus Ilicis, Mascalucia, Catania Siciliæ.
A Ph. Quercus-Ilicis et Ph. ilicina satis diversa. Ad subgen.
Phyllostictella Tassi spectat.

156. Phyllosticta Bresadoleana Bab. et Kab., Fünft. Beitr. Pilzfl. Tir. 6257 in Ber. naturw.-med. Ver. Innsbruck, XXX Jahrg. (1905-1906) Extr. p. 8. — Maculis epiphyllis, utrinque visibilibus, solitariis v. sparsis, plerumque minutis, usque ad 5 mm. latis, orbiculatim v. subpolygone dispositis, brunneis v. subalutaceis, anguste brunneo-purpureo-marginatis, nervis limitatis; pycnidiis plerumque hypophyllis, raro epiphyllis, in maculis sparsis, quandoque binis v. pluribus confluentibus, subepidermicis, 120-250 μ. diam., globosis, e succineo obscure brunneis, primum clausis dein late apertis; sporulis ellipsoideis v. breviter cylindraceis, utrinque leniter angustatis, rotundatis, 4-7 × 2-2,5, rectis, hyalinis, biguttulatis, in cirrum brevem crassum productis; sporophoris filiformibus rectis, 10-12 × 1,5-2.

Hab. in foliis vivis Quercus pubescentis, prope Ponte alto, Tirolia aust. — Socium adest Camarosporium Oreades.

157. Phyllosticta salicina Kabát et Bubák, Hedwigia XLIV (1905) 6258 p. 351. — Maculis epiphyllis utrinque visibilibus, angulosis v. rotundato-angulosis, nervis limitatis, e brunneo nigro-brunneis, confluentibus, magnis; pycnidiis plerumque hypophyllis, confertis, quandoque confluentibus, immersis, epidermide tectis, udis pustuliformibus siccis plicatis et plerumque collabescentibus, globosocompressis, 60-120 μ. diam., obscure brunneis, poro rotundato papilliformi apertis, contextu tenui parenchymatico, hyalino v. pallide brunneo; sporulis breviter subcylindraceis 3-4,5 × 1-1,5, rectis v. curvulis, utrinque rotundatis, hyalinis, unilocularibus, minute guttulatis; sporophoris brevibus hyalinis.

Hab. in foliis emortuis Salicis albæ prope Turnau Bohemia (KABAT).

158. Phyllosticta iserana Kabát et Bub., Hedwigia, XLVII (1908) 6259 p. 454; Fungi imperf. exsicc. fasc. XI (1909) n. 501. — Maculis epiphyllis, singulis v. gregariis, raro binis v. paucis confluentibus, rotundatis v. rotundato-angulosis, siccis alutaceis v. brunneo-griseis, modice purpureo-brunneo- v. nigro-marginatis; pycnidiis numerosis, sparsis, quandoque gregariis, immersis, epidermide tectis, poro papilliformi erumpentibus, brunneis, subglobosis, 120-180 µ.

diam., contextu grosse parenchymatico, pallide brunneo; sporulis numerosis, ovoideis, ellipsoideis v. breviter cylindraceis,  $5-8 \times 2-3$ , rectis v. curvulis, utrinque rotundatis, hyalinis; sporophoris brevibus, papilliformibus.

Hab. in foliis vivis Salicis fragilis prope Turnau Bohemia (KABAT). — A ceteris speciebus salicicolis distincta.

159. Phyllosticta apicalis Davis, Trans. Wisconsin Ac. of Sc. XVI, 6260 Pt. II (1909) p. 761. — Maculis brunneis plerumque secus nervum medium extensis, basi quandoque angustatis, immarginatis; pycnidiis numerosis, amphigenis, obscure brunneis v. nigris, ostiolatis; sporulis ex oblongo ovoideis, hyalinis, continuis, 4-7 × 1-3.

Hab. in foliis Salicis lucidæ, Dousman Amer. bor.

160. Phyllosticta Taxi Hollós, Ann. Mus. Nat. Hungar. VIII (1910) 6261 p. 3. — Maculis amphigenis, ochraceis, apicem foliorum occupantibus; pycnidiis epiphyllis, sparsis, epidermide velatis, lenticularibus, dilute umbrinis, poro pertusis, 170-210 μ. diam., contextu celluloso; sporulis ellipsoideis v. ovoideis, continuis, hyalinis, 6-8 × 3,5-4. Hab. in foliis languidis Taxi baccatæ prope Kecskemét

Hungariæ.

161. Phyllosticta Stangeriæ H. Zimmermann, in Verhandl. naturf. 6262 Ver. Brünn XLVII (1908-1909) pag. 31, t. I, f. 1-2 (extr.). — Maculis majusculis, ochraceis, ad marginem foliorum plerumque sitis; pycnidiis usque ad 425 μ. diam., epiphyllis, nigris, globosis; sporulis 6-8 × 2,5, cylindraceis, uno fine angustatis, 2-3-guttulatis; sporophoris decoloribus, septatis, 30-40 × 1,5.

Hab. in foliis vivis Stangeriæ paradoxæ in tepidario cultæ Eisgrub Austriæ.

162. Phyllosticta sabalicola Szabó, Annal. d. k. k. naturhist. Hofmus. 6268 Wien Bd. XVIII, p. 356 (1903) et Crypt. exs. n. 828. — Pycnidiis globuloso-depressis, punctiformibus, atris, parenchymate innatis, epiphyllis, cuticula hyalina tectis, epidermidem subelevantibus et irregulariter dehiscentibus, plerumque sparsis, sed hinc inde lineariter dispositis, diametro 300-500 μ.; sporulis oblongoellipsoideis, subchlorinis, 13-15 × 4-5, eguttulatis, hyphis non visis.

Hab. in petiolis exsiccatis Sabalis Blackburnianæ Glazbr. in calidariis horti botanici Universitatis Budapest Hungariæ (J. Szabó).

163. Phyllosticta valparadisiaca Speg., Fungi Chilenses (1910) p. 140. 6264
 Maculis amphigenis orbicularibus, 1 3 mm. diam., fuscescentibus, margine callosulo limitatis; pycnidiis paucis (2-3) innatis, len-

ticularibus, 60-80  $\mu$ . diam., minute ostiolatis, membranaceis, olivaceis; sporulis elongato-ellipsoideis, hyalinis, utrinque rotundatis,  $4-6 \approx 1$ .

Hab. in foliis Orchidace e terrestris cujusdam, Cerro Alegre de Valparaiso Chile, Amer. austr.

164. Phyllosticta Acoridii P. Henn., Hedwigia XLVII (1908) p. 262. 6265
— Maculis amphigenis, rotundatis, incrassatis, rufo-brunneis v. hyalinis, exaridis, atro-cingulatis; pycnidiis singularibus (rarissimis) lenticularibus, atris, c. 50 μ.; sporulis oblonge cylindraceis, obtusis, hyalinis, 4-5 × 0,8.

Hab. in foliis Acoridii, Mindanao, Mt. Mohisdang ins. Phi-

lippin. (MEARUS).

165. Phyllosticta Bletiæ H. Zimmermann, in Verhandl. naturf. Ver. 6266 Brünn, XLVII (1908-1909) p. 27 (extr.) t. I, f. 4-5. — Pycnidiis in maculis magnis, ochraceis v. albidis, nigro-purpureo-marginatis, utrobique dispositis, globosis, 130-150 μ. diam., cum ostiolo 10 μ. lato; sporulis ovoideis 6-7 × 3,4-4, decoloribus.

Hub. in foliis vivis Bletiæ (Bletillæ) hyacinthinæ cultæ

in calidario in Eisgrub Austria.

166. Phyllosticta Dracænæ Griff. et Maubl. Bull. Soc. Myc. France, 6267 XXV (1909) p. 239, t. 27, f. 2. — Maculis magnitudine formaque irregularibus, amphigenis, fulvis, linea angusta, elevata vix obscuriore cinctis; pycnidiis sparsis, amphigenis, minutissimis, immersis, poro apertis; sporulis cirrose expulsis, hyalinis, oblongis, eguttulatis, 5-7 × 2-2,5.

Hab. in foliis vivis Dracænæ sp. cultæ pr. Parisios Galliæ.
167. Phyllosticta Draconis Berk. in Welw. F. Port. p. 5 — Syll. III, 6268
p. 60 (sine diagn.) — Cooke, Fung. Pests p. 169, t. XV, f. 25.
— Maculis amphigenis, irregularibus, pallidis, purpureo-marginatis; pycnidiis sparsis, minutis, sphæroideis, innatis, epidermide initio velatis; sporulis profusis, minutis, ellipsoideis, hyalinis, demum eructatis, 7 × 3.

Hab. in foliis Dracene Draconis, D. terminalis, D. Cooperi in Lusitania, Gallia, Britannia. Species valde noxia. — Verisimiliter Phyll. maculicola Halst. in N. J. Agric. Exp. St. Rep. IV (1893) p. 412 et Dugg. Pl. Dis. p. 347, f. 168 (hab.), in foliis Dracene et Cordylines cultarum et æque noxia, in calidariis Amer., bor. ab hac non differt.

168. Phyllosticta pallidior Peck, New York State Mus. Bull. n. 105 6269 (381) (1906) p. 26. — Maculis ellipticis v. orbicularibus, 5-10 cm.

long., 3,5-7,5 cm. latis, albidis v. griseis, rubido-marginatis; pycnidiis minutis, epiphyllis, centrum macularum occupantibus, nigris; sporulis globosis v. late ellipsoideis, 10-13 × 7-10.

Hab. in foliis vivis Wagner estellate, Bergen Swamp Amer. bor. — Ph. cruentæ affinis.

169. Phyllosticta Funkiæ Ferraris, Malpighia XX (1906) p. 146. — 6270 Maculis pallidis, brunneo-zonato-marginatis, irregularibus; pycnidis epiphyllis, gregariis, pallidis, fere roseis, minutis, membranaceis, eximie perforatis, 115-150 μ. diam.; sporulis hyalinis, obovatis v. cylindraceis, apice rotundatis, numerosissimis, eguttulatis, 9-11 × 3-3,5; sporophoris brevissimis.

Hab. in foliis Funkiæ ovatæ cultæ in hortis, Alba Pedemontii Italiæ bor.

170. Phyllosticta Crini Sacc., Ann. Mycol. VI (1908) p. 555. – Ma-6271 culis amphigenis, superne bullatis, suborbicularibus, 2-5 mm. d., alutaceis dein centro expallentibus; pycnidiis paucis, epiphyllis, globoso-depressis, punctiformibus, atris, 60-80 μ. diam.; sporulis ovoideis, hyalinis, 3 × 1.

Hab. in foliis languidis Crini sp. in Horto bot. Panormitano, Sicilia (J. H. MATTEI).

171. Phyllosticta Bromeliæ Alm. et Cam., Bol. Soc. Brot. XXV (1908-6272 1909), Extr. p. 25. — Maculis amphigenis, indeterminatis, albescentibus; pycnidiis epi-hypophyllisve, subglobosis, nigris, innatis, plerumque sparsis v. raro gregariis, poro pertusis, 150-200 μ. d.; sporulis ellipsoideis, hyalinis, continuis, biguttulatis, utrinque attenuatis, 8-10 \* 3.

Hab. in foliis Bromeliæ Acangæ in Horto bot. Coimbra Lusitania (A. Moller).

172. Phyllosticta Dioscoracearum Bacc., Funghi Schen-si sett., Nuovo 6278 Giorn. bot. it. N. S. v. XII (1905) p. 697. — Maculis amphigenis, suborbicularibus, minutis, margine crassiore, arescendo griseis, non areolatis; pycnidiis minimis orbicularibus, contextu tenui parenchymatico, membranaceis, pallidis, 38 μ. latis, ostiolo minuto pertusis, epiphyllis in quaque macula singulis; sporulis continuis 10-11 × 3,8-4.

Hab. in foliis Dioscoreaceæ cujusdam, ad In-kia-po Sinæ.
173. Phyllosticta Cavaræ Trinchieri, Rend. Ac. Sc. Fis. Mat. Napoli 6274 (1909) fasc. 3-4, marzo-aprile p. 89. — Maculis amphigenis, irregularibus, sinuosis, copiosissimis, sparsis confluentibusque, plerumque folium late occupantibus, initio flavescentibus, dein brunneo-

cinereis vel sordide albicantibus, margine distincto, elevato, castaneo cinetis, aridis,  $^{1}/_{2}$ -14 cm. diam., 1-16 cm. longis; pycnidiis dense gregariis, punctiformibus, atris, subcutaneo-erumpentibus, globuloso-depressis, poro ampliusculo hiantibus, 245-367  $\mu$ . diam., 220-245  $\mu$ . altis, excipulo firmulo, parenchymatico, fuligineo donatis; sporulis elongato-ellipticis, utrinque rotundatis, exquisite 2-3-guttatis, hyalinis, 7-12  $\approx$  2-4,5.

Hab. in foliis vivis Anthurii crassinervii culti in calidario Horti regii botanici neapolitani Ital. austr. (Trinchieri).

174. Phyllosticta Tuzsonii Bubák, Beitr. Pilzfl. Ung., in Növénytani 6275 Közlemények (1907) Heft 4, Extr. pag. 27. — Maculis foliicolis utrinque visibilibus, elongatis v. irregularibus, flavo-ochraceis, indistincte limitatis, demum arescendo albidis, sparsis; pycnidiis in mesophyllo immersis, utrinque prominulis, globosis, 150-220 μ. diam., flavo-ochraceis, contextu tenui parenchymatico flavido, poro breviter papilliformi; sporulis bacillaribus, 4-5 × 2-2,5, rectis, raro curvulis v. irregularibus, utrinque rotundatis, guttulatis, hyalinis.

Hab. in foliis vivis Ari italici in Suskuluj prope Herkulesfürdö Hungariæ. — A Ph. aricola Bub. pycnidiis majoribus,

pallidioribus sporulisque minoribus diversa.

175. Phyllosticta aricola Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 6276 p. 404, tab. 15, fig. 1-2. — Maculis rotundatis v. elongatis, 4-7 mm. latis, sparsis, e medio albo-arescentibus, mox brunneis, obscure marginatis, sæpe concentrice zonatis; pycnidiis epiphyllis in maculis sparsis, plus v. minus gregariis, 100-150 μ. latis, obscure brunneis, globoso-depressis, in mesophyllo immersis epidermidem vix lacerantibus; contextu pallide brunneo apice obscuriore, intus subhyalino; sporulis breviter cylindraceis, 5-9 ≈ 2,3, utrinque rotundatis, hyalinis, unilocularibus.

Hab. in foliis vivis Ari italici prope Ulcinj Montenegro.
176. Phyllosticta colocasicola v. Höhn., Sitzb. k. Ak. d. Wiss. Wien 6277
CXVI (1907) p. 142. — Maculis nullis; pycnidiis sparsis v. paucis gregariis, amphigenis, nigris, punctiformibus, globosis, subepidermicis, distincte ostiolatis, 100-120 μ. diam., obscure brunneomembranaceis, distincte parenchymaticis; sporulis hyalinis, contentu granuloso, ovoideis, 10 × 5-6; sporophoris brevissimis.

Hab. in foliis languidis Colocasiæ sp., Malisa in ins. Samoa (Rechinger).

177. Phyllosticta Colocasiæ v. Höhnel, Fragm. z. Mykol., Sitzb. k. 6278 Ak. d. Wiss. Wien Bd. CXVI, Abt. I (1907) p. 142. — Maculis

amphigenis, numerosis, rotundatis, brunneis, obscure marginatis, concentrice sulcato-zonatis, 3-7 mm. lat.; pycnidiis amphigenis, copiosis, sub stomatibus immersis, tenui-membranaceis, obscure brunneis, globosis, 70  $\mu$ . circ. latis; sporulis hyalinis, rectis, cylindraceis, apice parum incrassatis, 3-4  $\times$  1; sporophoris brevissimis.

Hab. in foliis languidis Colocasiæ sp., Malifa in ins. Samoa (Rechinger). — Cum Cercospora Caladii Cke. var. Colocasiæ v. Höhn. verisimiliter metagenetice connectitur.

178. Phyllosticta Turconii Trinchieri, in litt. 27 Jul. 1909, Phyll. 6279 Philodendri Turconi, in Atti R Ist. bot. Pavia (1905) p. 314-318, tab. XXI, fig. 11-13, non Phyll. Philodendri Allesch. — Syll. XI, p. 482. — Maculis initio brunneis, zona lutea circumscriptis, subrotundis, arescendo albo-griseis, fusco- vel purpureo-marginatis, maximis (aliquando totum folii limbum invadentibus); pycnidiis plerumque irregulariter sparsis v. subconcentrice dispositis, innato-erumpentibus, 170-200 μ. diam., globosis v. globoso-lenticularibus; sporulis magnis, cylindraceo-ellipsoideis, granulosis, 18-20 × 5-7, hyalinis; sporophoris brevibus v. nullis.

Hab. in foliis Philodendri bipinnatifidi culti in horto botanico, Pavia Italiæ borealis

179. Phyllosticta saccharicola P. Henn., in Fl. du Bas et Moy.-Congo, 6280 v. II, fasc. II (1907) pag. 105. — Maculis amphigenis, oblongis, pallidis, exaridis, margine fuscidulo v. sanguinolento cinctis; pycnidiis hypophyllis, subgregariis, lenticularibus, atris, vertice pertusis, 60-90 μ.; sporulis oblongis, subfusoideis, hyalinis, 2-3-guttulatis, 10-30 × 3-3,5.

Hab. in foliis Sacchari officinarum, Kisantu Congo Africa (VANDERYST).

180. Phyllosticta Take Miyake et Hara, in Bot. Mag. Tokyo (1910) 6281 p. (351) [japonice].

Hab. in foliis Bambusæ sp., in Japonia.

181. Phyllosticta glumarum-Setariæ P. Henn., in Fl. du Bas- et Moy.- 6282 Congo, Ann. Mus. du Congo v. II, fasc. II (1907) pag. 101. — Maculis pallidis exaridis; pycnidiis sparsis v. subgregariis, lenticularibus, atris, vertice perforatis, atro-fuscis, 60-70 μ.; sporulis ellipsoideis, obtusis, eguttulatis, hyalinis, 3,5-4 ≈ 2-2,5.

Hab. in glumis Setariæ aureæ, Kisantu Congo, Africa (VANDERYST).

182. Phyllosticta glumarum-Sorghi P. Henn., in Fl. du Bas- et Moy.- 6288 Congo, Ann. Mus. du Congo, v. II, fasc. II (1907) pag. 101. —

Maculis pallidis effusis; pycnidiis sparsis v. gregariis, lenticularibus, atris, vertice perforatis, 40-60 µ. diam.; sporulis ellipsoideis, hyalinis, 1-guttulatis, 4-5 × 2-3.

Hab. in glumis Sorghi vulgaris, Kisantu Congo, Africa

(VANDERYST).

183. Phyllosticta Bromi Potebnia, Mycol. Stud., Ann. Myc. VI (1907) 6284 pag. 14 et Trav. Soc. Nat. Univ. Charkov XXXXIII (1907). — Pycnidiis sphæroideis pallide brunneis, ostiolatis, 100-140 μ. cr.; sporulis elongatis obtusatis, uni-guttulatis, 12 × 3.

Hab. in foliis Bromi patuli socia Septoria Bromi prope

Kharkov Rossiæ.

184. Phyllosticta Miurai I. Miyake, Pilze Reispfl. Japan (Journ. Col. 6285 lege Agric. Tokyo, II (1910) p. 253, t. XIV, f. 31-32. — Pycnidiis immersis ostiolo prominulis, ellipsoideis, nigro-brunneis, 80-125 μ. diam., 50-70 μ. alt.; sporophoris parvis; sporulis cylindraceis apice rotundatis, 3-4 × 1-1,5.

Hab. in foliis Oryzæ sativæ, Kagoshima, Aichi Japoniæ

(SHIRAI).

185. Phyllosticta japonica I. Miyake, Pilze Reispfl. Japan (Journ. 6286 College Agricult. Tokyo, II (1910) p. 253, t. XIV, f. 29-30. — Maculis effusis brunneis dein albescentibus; pycnidiis globosis v. 'ellipsoideis, immersis, nigris, 75-100 μ. diam., 55-90 μ. alt.; sporophoris parvis; sporulis fusoideis, 7,5-10 × 3-4, biguttulatis.

Hab. in foliis glumisque Oryzæ sativæ, Nara Japoniæ.

186. Phyllosticta Danthoniæ Speg., Myc. Arg. V, pag. 333, in An. 6287 Mus. Buenos Aires XX (1910). — Maculis nullis; pycnidiis hinc inde confertiusculis, innato-erumpentibus, nigris, subcarbonaceis, glabris, minute ostiolatis, lenticularibus, 10-150 µ. diam., velatoerumpentibus, contextu indistincto; sporulis ellipsoideis vel obovatis, non vel 1-2-guttulatis, hyalinis, 5-6 × 3, rectis vel leniter curvulis.

Hab. ad folia vaginasque Danthoniæ sp. in pratis Neuquen

Argentinæ. — Ad Phomam vergit.

187. Phyllosticta Phari Speg., Myc. Argent. V, p. 337, in An. Mus. 6238 Buenos Aires XX (1910). — Maculis amphigenis repandulis, determinatis, cinerescenti-albescentibus, areola angustissima rufescente cinctis, 2-15 mm. diam.; pycnidiis innatis, sparsis, epiphyllis, 50-75 µ. diam., ostiolo rotundo parvo pertusis, contextu subparenchymatico olivaceo; sporulis elliptico-cylindraceis, eguttulatis, utrinque obtusis, 4-5 × 2, hyalinis.

Hab. ad folia viva Phari glabri in silvis prope Tucuman Argentina.

188. Phyllosticta kerguelensis P. Henn., Deutsche Südpolar-Exped. 6289 Bd. VIII (1906) Extr. pag. 13, tab. II, fig. 14 a-b. — Maculis pallidulis v. fuscidulis, explanatis; pycnidiis innatis, subglobosolenticularibus, atro-fuscis, membranaceis, medio pertusis, 60-80 μ. diam.; sporulis ellipsoideis v. ovoideis, 1-guttulatis, 5-8 × 3-3,5, hyalinis.

Hab. in foliis siccis Poæ Cookii, Kerguelen-Station (E. Werth). — A Ph. fuegiana diversa.

189. Phyllosticta paleicola P. Henn., Deutsche Südpolar-Exped. Bd. 6290 VIII (1906) Extr. p. 13, tab. II, fig. 15 α-b. — Pycnidiis sparsis, innato-erumpentibus, subglobosis, vertice perforatis, atro-fuscis, membranaceis, 50-60 μ. diam.; sporulis ellipsoideis v. ovoideis, utrinque obtusis, 1-guttulatis, 5-7 × 3-4.

Hab. in foiiis paleisque Festucæ erectæ, Kerguelen. — Socia adest Sphærella paleicola P. Henn.

190. Phyllosticta coralliobola Bubák et Kabát Hedw. XLIV (1905) 6291 p. 351. — Maculis amphigenis, irregularibus, elongatis, ochraceis, subferrugineis v. brunneis, demum medio præcipue pallescentibus, immarginatis; pycnidiis amphigenis, sparsis v. secus nervos sæpe lateraliter seriatis, immersis, globosis, subdepressis, 90-140 μ. d., epidermide tectis, dein erumpentibus; contextu tenui parenchymatico, flavo-brunneolo, supra obscuriore et firmiore; sporulis ex ovoideo elongatis, 4-7 × 2-3, rectis v. curvulis, apice rotundatis, hyalinis, unilocularibus; sporophoris sporulas subæquantibus.

Hab. in foliis vivis et emortuis Typhæ latifoliæ et angustifoliæ, Bohemia (KABAT).

191. Phyllosticta Polypodii-australis P. Henn., Deutsche Südpolar- 6292 Exped. Bd. VIII (1906) Extr. p. 13. — Maculis griseo-pallidis, exaridis, irregularibus; pycnidiis sparsis, innatis, sublenticularibus, poro pertusis, atro-fuscis, c. 40-60 μ. cr.; sporulis ovoideis, 1-guttulatis, hyalinis, 5-6 × 3-4.

Hab. in Polypodio australi, in ins. Kerguelen (WERTH).

192. Phyllosticta Amphipterygii Ricker, Journ. of Myc. (1905) p. 111. 6293 — Maculis subcircularibus, pallide brunneis, 2-8 mm. diam., sæpe confluentibus, tenuiter rubro-brunneo-marginatis; pycnidis sparsis, nigris, epiphyllis, 55-80 μ. diam.; sporulis oblongis, sæpe inæquilateralibus, hyalinis, biguttatis, apice acutis, 8-10 × 2,5-3.

Hab. in foliis Amphipterygii amphifolii, prope Guadalajara, Jalisco Mexico (Roose et Painter).

193. Phyllosticta Cufiniana Trinchieri, in litt. 27 Jul. 1909. — Sic 6294 nominanda est *Ph. Mimusopsis* Cufino — Syll. XVIII, p. 233 — non P. Henn. — Syll. XI, p. 474.

194. Phyllosticta Berlesiana Sacc., Notæ Myc. VIII, Ann. Myc. v. IV 6295 (1906) p. 491, tab. X, fig. 4. — Pycnidiis entomophilis, in alis Cicadæ hinc inde dealbatis laxe gregariis, amphigenis, lenticularibus, 80-120 \(\rho\). diam., poro impresso rotundo pertusis, nigricantibus; contextu distincte parenchymatico, dilute fuligineo; sporulis ellipsoideis v. ovoideis, sæpe leviter inæquilateris, 7 × 4, farctis, hyalinis; sporophoris obsoletis.

Hab. in alis Cicadæ plebejæ jam emortuæ, Valdipurga pr. Rosignano Marittimo, in agro Pisano Etruriæ (prof. Ant. Berlese).

195. Phyllosticta adeloica Speg., Fungi Paulist., Rev. Mus. La Plata 6296 t. XV, p. 32. — Maculis amphigenis irregularibus, 2-8 mm. d., cinereo-arescentibus; pycnidiis erumpenti-superficialibus, sæpius epiphyllis, laxe gregariis, 60-90 μ. diam., ostiolo late aperto 20-30 mm. diam., umbilicato-perforatis, tenui-membranaceis, contextu minute denseque parenchymatico, fuligineo; sporulis rectis v. leniter inæquilateralibus, utrinque subacutiusculis, rotundatis, 4-6 × 2, hyalinis.

Hab. ad folia coriacea arbusculæ ignotæ cujusdam, Cambucy Ipiranga, Brasilia (USTERI).

196. Phyllosticta aporoica Speg., Fungi Paulist., Rev. Mus. La Plata 6297 t. XV, p. 32. — Maculis amphigenis repandulo-angulosis, linea non callosa, sæpius angusta, sordide fusco-testacea cinctis, 3-10 mm. diam., inferne fere semper pallide lateritiis et quandoque Coccis tectis, superne primo fusco-cinerescentibus dein albescentibus; pycnidiis laxe sparsis, lenticularibus, 60-80 μ. diam., poro minuto pertusis, contextu minute denseque parenchymatico, fuligineo; sporulis rectis v. inæquilateralibus, utrinque obtusiuscule rotundatis, 4-6 × 1,5-2, hyalinis, sporophoris paullo longioribus, tenuissimis, concoloribus suffultis, grosse biguttulatis.

Hab. ad folia arboris ignotæ cujusdam in Horto bot. Sao Paulo Brasilia (USTERI).

197. Phyllosticta? leptosperma Speg. Fungi Paulist., Rev. Museo La 6298 Plata, t. XV, pag. 33. — Pycnidiis epiphyllis epidermide tectis dense gregariis, plagulas nubilosas subcinerescentes v. confluendo difformes efficientibus, e globoso lenticularibus, astomis?, ferrugi-

neis glabris, membranaceo-carnosulis, contextu testaceo minuto denso subimperspicuo; sporulis cylindraceis rectis v. leniter curvulis utrinque obtusiuscule rotundatis,  $4-5 \approx 1$ , eguttulatis, hyalinis.

Hab. ad folia coriacea arboris cujusdam ignotæ, Ipiranga Moça Brasilia (USTERI).

198. Phyllosticta heterospora Speg., Fungi Paulist., Rev. Mus. La 6299 Plata t. XV, p. 33. — Maculis amphigenis suborbicularibus, 5-10 mm. diam., centro bullosis, circinatim rugulosis, pallescentibus; pycnidiis minutis 60-80 μ. diam., tecto-prominulis, epiphyllis, glabris, olivaceis, ostiolo majusculo 20 μ. diam. perforatis, tenui-membranaceis, contextu olivaceo dense minuteque parenchymatico donatis; sporulis rectis v. inequilateralibus utrinque obtusiusculis, 8-11 × 4-5, hyalinis, continuis v. rarius uniseptatis.

Hab. ad folia languida plantæ cujusdam in Horto Escola polythecnica, Sao Paulo Brasilia (USTERI).

199. Phyllosticta Malabailæ C. Mass. in litt. 23. III (1913). — Pycni- 6800 diis vulgo hypophyllis, punctiformibus, minutissimis, 35-45 μ. d., nigris, prominulis, in maculis sordide albidis, parvis, suborbicularibus aut irregularibus internerviis, magis minusve dense aggregatis; sporulis breviter bacillaribus, hyalinis, utrinque extremitate incrassatulis, rectis v. vix curvulis, 3-4 × 1.

Hab. in foliis languentibus Malabailæ (Hladnikiæ) Hacquetii infra rupes loco Malera Mont. Lessini prov. Verona Ital. bor. (Prof. Ag. Goiran). — Ob sporulas utrinque incrassatulas Ph. osteosporam et Ph. bacteriformem in mentem revocat, sed certe diversa.

Species (verisim. ad gen. Phyllostictam spectantes) inquirendæ.

200. Depazea myrticola Rabenh. in Kl. Herb. viv. myc. n. 1146 et 6801 Bot. Zeit. VI (1848) p. 293 (nomen nudum).

Hab. in foliis Myrti communis in Italia bor.

201. Depazea Umbelliferarum Lasch in Kl. Herb. viv. mycol. n. 1158 6801\* et Bot. Zeit. VI (1848) p. 294. — Cirri albi subincarnati.

Hab. in foliis Chærophylli sp. pr. Driesen Germaniæ. 202. Depazea grossularicola Fr.? ap. Klotzsch Herb. viv. mycol. 6302

n. 568 (1844) (nomen nudum).

Hab. in foliis Ribis Grossulariæ in Germania.

203. Depazea hedericola Klotzsch, Herb. viv. mycol. n. 1074 (1846) 6308 (nomen nudum) = Septoria Hederæ Desm.?

Hab. in foliis Hederæ Helicis in Germania.

204. Depazea brassicicola (Fr.) Kl. Herb. viv. mycol. n. 1142 (1848). 6804

— An = Sphwrella brassicæcola (Fr. et Duby) Ces. et De Not.?

Hab. in foliis Brassicæ in Germania.

205. Depazea Bidentis Lasch, in Klotzsch Herb. viv. myc. n. 871 6305 (1846) (nomen nudum).

Hab, in foliis Bidentis sp. in agro Driesen.

206. Depazea Clematidis Rabenh. in Kl. Herb. viv. myc. n. 1647 6806 (1852) (nomen nudum).

Hab. in foliis Clematidis sp. in Germania.

207. Depazea lyciicola Lasch, in Kl. Herb. viv. mycol. n. 1252 (1849) 6807 (nomen nudum).

Hab. in foliis Lycii sp. in agro Driesen.

208. Depazea Tiliæ Lasch, in Kl. Herb. viv. mycol. n. 1160, Bot. 6308 Zeit. VI (1848) p. 294. — Cirrus albus.

Hab. in foliis Tiliæ in agro Driesen.

209. Depazea Hieracii Lasch, in Kl. Herb. viv. mycol. n. 872 (1846) 6309 (nomen nudum).

Hab. in foliis Hieracii in agro Driesen.

210. Depazea syringicola Lasch, in Kl. Herb. viv. mycol. n. 569 6810 (1844) (nomen nudum).

Hab. in foliis Syringæ in agro Driesen Germaniæ.

- HAPALOSPHÆRIA Sydow, Ann. Mycol. VI (1908) p. 305 et in Diedike, Aufzähl. Micromyc. Erfurts (1910) p. 73 (Etym. hapalos mollis et Sphæria). Pycnidia pallide brunnea, mollia, parietibus crassiusculis sed mox collabescentibus donata; sporulæ globosæ, uniloculares, hyalinæ. Parasitica in floribus pulvere sporularum demum intus farctis.
- 1. Hapalosphæria deformans Sydow, Ann. Myc. l. c. p. 305 cum ic. 6311 Pæpalopsis deformans Sydow, Ann. Myc. V (1907) pag. 398. Mycelio in gemmis primum verisimiliter evoluto, demum etiam in antheris, 2-3,5 μ. cr., varie irregulariterque ramoso-incurvato, septato, hyalino, intercellulari, hinc inde nodulos efformante; pycnidiis nunc solitariis, nunc plus v. minus aggregatis, in antheris efformatis, e globoso conoideis, 50-80 μ. diam., contextu parenchymatico, parietibus crassiusculis, loculum plerumque parvum limitantibus; sporulis globosis, hyalinis, levibus, 3-5 μ. diam. numerosis.

Hab. in floribus deformatis et præcipue in antheris Ruborum, in pluribus locis Thuringiæ, Germania.

- PHOMA Fr. Syll. III p. 65, X p. 138, XI p. 482, XIV p. 866, XVI p. 851 et 1154, XVIII p. 245.
- Phoma pæonicola Hollós, Ann. Mus. Nat. Hung. IV (1906) 6812
   p. 339. Pycnidiis epidermide tectis, gregariis, depresso-globosis, nigris, poro pertusis, 120-175 μ. diam., contextu parenchymatico; sporulis ovoideis, continuis, eguttulatis, dilute brunneis, 6-7 × 3,5-4.
  - Hab in ramis siccis Pæoniæ arboreæ, Kecskemét Hungariæ. A Ph. Pæoniæ All. differt pycnidiis majoribus, sporulis dilute brunneolis; a Ph. lirellata Sacc. sporulis dilute brunneolis minoribus.
- 2. Phoma Adonidis Moesz, Gomb. Budapest. I (1909) p. 19, t. II, 6818 fig. 6 (Bot. Közlem.). Pycnidiis sparsis, epidermide tectis, depresso-globosis, nigris, c. 200 μ. diam., epapillatis, ostiolo 50-60 μ. diam., contextu parenchymatico, fuligineo; sporulis curvulis, semilunaribus, utrinque acutiusculis, 8,8-15 × 3-4,5, continuis, hyalinis, minute guttulatis.

Hab. in petiolis siccis Adonidis vernalis prope Budapest Hungariæ.

3. Phoma Pulsatillæ Karst., Acta Soc. pro Fauna et Fl. fenn. XXVII, 6814 4 (1905) p. 8. — Pycnidiis sparsis, innato-erumpentibus, sphæroideo-applanatis, ostiolo papillato, atris, punctiformibus; sporulis elongatis, 4 × 1.

Hab. in caulibus aridis Pulsatillæ prope Polovinca Sibiriæ.

4. Phoma Ranunculi Karst., Acta Soc. pro Faun. et Fl. fenn. XXVII, 6815 4 (1905) p. 8. — Pycnidiis erumpentibus, conoideis, ostiolo acuto, atris, punctiformibus; sporulis elongatis, eguttulatis, 4-6 × 1-1,5.

Hab. in caulibus Ranunculi acris, Tammela Fenniæ.

5. Phoma complanatula Karst., Acta Soc. pro Fauna et Fl. fenn. 6816 XXVII (1905) 4, p. 8. — Pycnidiis erumpenti-superficialibus, ellipsoideis, raro globulosis, complanatis, ostiolo papillato, atris, circiter 400 μ. latis; sporulis elongatis, eguttulatis, 3-4 × 1.

Hab. in caulibus emortuis Ranunculi acris prope Mustiala Fenniæ.

6. Phoma longirostrata Bubák, Bull. Herb. Boiss., 2 sér., VI (1906) 6817 p. 406. – Pycnidiis sparsis, subepidermicis, rostello 50-200 × 45-70, cylindraceo erumpentibus demum nudis, 250-450 μ. latis, lenticularibus, centro subumbonatis, piceis, contextu crasso nigro-brunneo; sporulis bacillaribus, 3-4 × 1, guttulatis, hyalinis; sporophoris hyalinis minutis brevibus.

Hab. in caulibus Ranunculi Villarsii prope Andrijevica Montenegro. — Phomæ acutæ Fuck. affinis.

7. Phoma malisorica Bubák, Bull. Herb. Boiss 2 sér. VI (1906) 6318 p. 406. — Pycnidiis sparsis v. gregariis, globosis, nonnullis fortiter depressis, subepidermicis, papilliformi-erumpentibus, 90-100 μ. latis, nigris, contextu 10-12 μ. cr. brunneo-nigro parenchymatico; sporulis ellipsoideis v. elongato-cylindraceis, 4,5-7,5 × 2,5-3, utrinque rotundatis, guttulatis, hyalinis, unilocularibus; sporophoris hyalinis papilliformibus.

Hab. in caulibus Clematidis Viticellæ prope Ulcinj, Mon-

tenegro.

Phoma Berteroæ Hollós, Ann. Mus. Nat. Hung. VI (1908) p. 529. 6319
 — Pycnidiis epidermide tectis, gregariis, lenticularibus, fuscis, poro pertusis, 170-220 μ. diam., contextu celluloso; sporulis oblongoellipsoideis, continuis, biguttulatis, hyalinis, 3-3,5 × 1.

Hab. in caulibus siccis Berteroæ incanæ, Kecskemét Hun-

gariæ.

Phoma lepidiicola Hollós, Ann. Mus. Nat. Hung. V (1907) p. 457. 6320
 — Pycnidiis epidermide velatis, gregariis, lenticularibus, fuscis, poro pertusis, 140-180 μ. diam., contextu parenchymatico; sporulis ovoideis, continuis, eguttulatis, hyalinis, 5-6 × 4.

Hab. in caulibus siccis Lepidii crassifolii prope Kecskemét Hungariæ. — A Phoma Lepidii (Sacc.) All. diversa.

10. Phoma gregaria Syd. — Syll. XVI, p. 852. — subsp. Thiaspeos 6321
Karst., Acta Soc. pro Faun. et Fl. fenn. XXVII, 4 (1905) p. 9.
— Pycnidiis gregariis v. sparsis, erumpenti-superficialibus, atris, punctiformibus; sporulis oblongatis, eguttulatis, 3-4 ≈ 1-1,5.

Hab. ad caules exsiccatos Thlaspeos arvensis in ditione Mustialensi Fenniæ.

11. Phoma lardizabalicola Speg., Fungi Chilenses (1910) p. 143. — 6322 Maculis nullis; pycnidis sæpius hypophyllis sparsis, parenchymate innatis, epidermide tectis, lenticularibus, 100-120 μ. diam., coriacellis, ostiolatis; sporulis cylindraceo-subellipsoideis, rectis v. subinæquilateris, 14 × 3-4, hyalinis.

Hab. in foliis siccis Lardizabalæ biternatæ in silvaticis Cerro Caracol de Concepción, Chile, Amer. austr.

12. Phoma Lardizabalæ Speg., Fungi Chilenses (1910) pag. 143. — 6323 Maculis amphigenis indeterminatis suborbicularibus, 2-5 mm. d., fuscescentibus; pycnidiis amphigenis epidermide velatis confertiusculis lenticularibus, 50-80 μ. diam., atris, coriacellis, minute per-

forato-ostiolatis; sporulis cylindraceis sæpe medio coarctatulis, rectis v. curvulis, 3-4 × 1, hyalinis.

Hab. in foliis siccis Lardizabalæ biternatæ in silvaticis Cerro Caracol de Concepción, Chile, Amer. austr.

13. Phoma pteleicola Hollós. Növényt. Közlemén. (1907) VI, Extr. 6924 p. 4. — Pycnidiis epidermide tectis, dein superficialibus, gregariis, lenticularibus, fuscis, poro pertusis, 80-180 μ. diam., contextu parenchymatico; sporulis ellipsoideis, continuis, eguttulatis biguttulatisve, hyalinis, 4-6 × 2,5-3.

Hab. in ramulis emortuis Pteleæ trifoliatæ, Kecskemét et Nagy-Körös Hungariæ. — A Phoma samararum Oud. f. Pteleæ Oud. et Ph. Pteleæ Oud. pycnidiis et sporulis minoribus satis diversa.

14. Phoma flaccida Mc Alpine, Fung. Diseas. Citr. pag. 94, t. 22, 6325 f. S1-S2. — Pustulis minutis, nigris, immersis, in foliorum apice dealbato gregariis; pycnidiis minutis, gregariis, nigro-brunneis, globoso-depressis, 170 μ. diam. papilla ellipsoidea, 45 × 32 præditis; sporulis hyalinis, coacervatis chlorinis, ellipsoideis v. ovoideis, 1-guttulatis, continuis, 3,5-4,5 × 2,5-3; sporophoris tenuibus, hyalinis, filiformibus, 5-5,5 μ. long.

Hab. in foliis Citri Aurantii pr. Melbourne, Australia.

15. Phoma oxalidicola Speg. Myc. Argent. V, p. 344, in An. Mus. 6826 Buenos Aires, XX (1910). — Pyenidiis innato-erumpentibus, pusillis, atris, sparsis, epidermide tectis dein erumpentibus, 80-100 μ. diam., subglobosis, contextu minute parenchymatico, pellucide olivaceo; sporulis elliptico-cylindraceis, utrinque rotundatis, 5-7 × 2,5-3, eguttulatis, subchlorinis.

Hab. ad petiolos aridos Oxalidis teneræ in montanis Cacheuta pr. Mendoza, Argentina.

16. Phoma melicola Sace. et Trott., Ann. Mycol. (1912) pag. 513. — 6327 Pycnidiis gregariis, copiosis, innato-erumpentibus, diu tectis, prominulis, minutissimis, 100-150 μ. diam., ostiolo 25 μ. circ. lato; præditis contextu tenui parenchymatico brunneolo; sporulis sub cylindraceis minutissimis, utrinque obtusis, copiosissimis, 3,5-4,5 × 2-2,5, hyalinis; sporophoris fasciculatis, hyalinis, acicularibus, sporulas subæquantibus.

Hab. in axe infructescentiæ Meliæ Azedarach, pr. Tripoli Africæ borealis, martio 1912 (A. TROTTER).

17. Phoma Hyperici-perforati P. Henn., Verh. Bot. Ver. Prov. Brandb. 6328 XLVII (1905) pag. 221. — Pyenidiis gregariis, epidermide tectis

dein erumpentibus, subglobosis, pertusis, atris, 100-150  $\mu$ . cr.; sporulis oblonge ellipsoideis, continuis, hyalinis  $5 \approx 3-3,5$ .

Hab. in caulibus siccis Hyperici perforati, Hellmühle Germaniæ.

18. Phoma Boldoæ Speg. Fungi Chilenses (1910) p. 141. — Maculis 6329 nullis; pycnidiis hypophyllis, innato-erumpentibus, sparsis, membranaceis, ostiolo minuto perforatis, subglobosis, 150-250 μ. diam., nigris; sporulis botuliformibus plerumque fortiter arcuatis, utrinque rotundatis, 4-5 × 1, hyalinis.

Hab. in foliis siccis dejectis subputrescentibus Boldoæ fra-

grantis, prope Talcahuano Chile, Amer. austr.

19. Phoma boldoicola Speg., Fuugi Chilenses (1910) p. 142. — Py 6330 cnidiis cortice innatis, epidermide velatis, sparsis, subhemisphericis, 90-100 μ. diam., nigris, membranaceis, vix papillato-ostiolatis; sporulis ellipsoideis, hyalinis, grosse biguttulatis, 3-4 × 2, in sporophoris 12-14 × 1,5, simplicibus acrogenis.

Hab. in ramulis siccis dejectis Boldoæ fragrantis prope

Talcahuano Chile, Amer. austr.

20. Phoma Kühniana Oertel, Annal. Mycol. V (1907) p. 431. — Py- 6831 cnidiis sparsis, globosis, sero depressis, coriaceis, atro-brunneis, 0,3-0,5 mm. diam., contextu distincte parenchymatico, sine ostiolis; sporulis minutis, 5-7 ≈ 1-1,5, cylindraceis, obtusis, hyalinis, non guttulatis; basidiis brevissimis.

Hab. in flagellis emortuis Violæ odoratæ cult. in hortis, Sondershausen Thuringiæ. — A Ph. violicola differt præcipue sporulis minoribus eguttulatis, a Ph. Violæ-tricoloris magnitudine pycnidiorum sporularumque diversa.

21. Phoma Mentzeliæ Speg., Myc. Argent. V, p. 343, in An. Mus 6882 Buenos Aires XX (1911). — Pycnidiis globoso-depressis, sparsis, hypodermicis, nigris, minute obtuseque ostiolatis, membranaceis, 100-150 μ. diam. dein nudis, contextu parenchymatico olivaceo; sporulis subcylindraceis, perexiguis, utrinque rotundatis, 2-3 × 1, eguttulatis, hyalinis v. perdilute chlorinis.

Hab. ad caules aridos Mentzeliæ albescentis prope Cacheuta, Argentina.

22. Phoma silenicola Bubák et Ranojevic, Ann. Mycol. VIII (1910) 6838 p. 383. — Pycnidiis in caulibus nigrescentibus crebre distributis, epidermide nigro-viridescenti tectis, dein erumpentibus, nigris, punctiformibus, globosis, ostiolo papilliformi præditis, 90-150 μ. cr.,

contextu pseudoparenchymatico obscure brunneo; sporulis bacillaribus, 3,5-4 × 1-1,5, hyalinis, biguttulatis.

Hab. in caulibus siccis Silenes tinctæ prope Vranjc Serbia.

— A Ph. melæna sporularum magnitudine diversa.

23. Phoma Gypsophilæ Hollós, Annal. Mus. Nat. Hungar. V (1907) 6384 p. 48. — Pycnidiis epidermide atrata tectis, dense gregariis, lenticularibus, nigris, poro pertusis, 240-280 μ. diam., contextu parenchymatico; sporulis oblongis, utrinque acutatis, biguttulatis, continuis, hyalinis, 6-9 × 2,5-3.

Hab. in caulibus siccis Gypsophilæ paniculatæ prope Kecskemét Hungariæ.

24. Phoma Roumii Fron, in Bull. Soc. Mycol. Fr. XXV (1909) p. 67, 6885 f. I-IV. — Maculis amplis, candidis v. subluteolis; pycnidiis immersis, subgregariis, depresse rotundis, 150-170 μ. diam., non papillatis; sporulis tereti-oblongis, utrinque rotundatis, rectis curvulisve, parce guttulatis, hyalinis, 4 × 2; sporophoris bacillaribus subæquilongis.

Hab. in caulibus vivis Gossypii, Dahomey. Afric. occid. — Species valde noxia.

25. Phoma Bonanseana Sacc., Ann. Mycol. VI (1908) p. 567. — Py-6836 cnidiis dense gregariis, subcutaneo-erumpentibus, minutis globosis, obtusis, nigris, 70-80  $\mu$ . diam; sporulis ellipsoideo-oblongis,  $4 \times 1,5$ , copiosissimis, ex hyalino dilutissime flavidis; sporophoris non visis.

Hab. in ulceribus et circum ea in caule Cerei geometrizan-

tis, Apaseo Mexico (Bonansea).

26. Phoma Echinopsidis Speg., Myc. Argent. V, p. 432, in An. Mus. 6337 Buenos Aires XX (1910). — Pycnidiis innato-erumpentibus, nigris, epidermide atrata tectis, obsolete ostiolatis, coriaceis, 150-200 μ. diam., depressis; sporulis tereti-ellipsoideis, utrinque obtusiusculis, 7-9 × 3-4, grosse 2-guttatis, hyalinis.

Hab. sub epidermide Echinopsidis Schickendantzii in

montanis Catamarca, Argentina.

27. Phoma suspecta Massee, Diseas. cult. Plants (1910) pag. 406, 6888 fig. 126: 5-7. — Pycnidiis depressis, ostiolo subprominenti præditis, 125-150 μ. diam.; sporulis ellipsoideis 3,5-5 × 2-2,5.

Hab. in ramulis Ribis sp. cultæ, quam vexat, in Amer. bor.

28. Phoma valdiviensis Speg., Fungi Chilenses (1910) pag. 145. — 6339 Pycnidiis sparsis v. laxe gregariis, cortice innatis, epidermide sublevata lacerataque tectis, lenticularibus, 100-120 μ. diam., subcar-

bonaceis, obsolete ostiolatis; sporulis ellipsoideis v. subovoideis, utrinque rotundatis,  $3-4 \times 1,75-2$ , hyalinis.

Hab. in ramis siccis Perseæ Lingue prope Ciudad de Valdivia, Chile Amer. austr.

29. Phoma Ceanothi P. Henn. in Kabat et Bubák, Fungi imp. exs. 6340 (1908) n. 502. — Maculis griseis, exaridis; pycnidiis gregariis, subcutaneo-erumpentibus, globulosis, atris, poro pertusis,  $100-140~\mu$ . diam.; sporulis ellipsoideis vel ovatis, obtusis, hyalinis, eguttulatis,  $4-6 \approx 2^{1}/_{\circ}-3$ .

Hab. in ramis Ceanothi americanæ, in horto botanico berolinensi Dahlem Germaniæ.

30. Phoma Trevoæ Speg., Fungi Chilenses (1910) p. 145. — Pycnidiis sparsis v. laxe gregariis subsuperficialibus atris subhemisphæricis, 90-100 μ. diam., carbonaceis, vix ostiolatis; sporulis cylindraceo-ellipsoideis, utrinque rotundatis, 2-3 × 1, primum hyalinis dein subchlorinis.

Hab. in ramis emortuis Trevoæ trinervis in collibus Batuco, Chile Amer. austr.

31. Phoma Villaresiæ Speg., Myc. Argent. V, p. 346, in An. Mus. 6342 Buenos Aires, XX (1910). — Pycnidiis hypophyllis, numerosis, laxe gregariis, innato-subsuperficialibus, atris, astomis, 50-80 μ. d., contextu parenchymatico, subindistincto, fusco-olivaceo; sporulis elliptico-subcylindraceis, perexiguis, rectis curvulisve, 2-3 × 1, hyalinis, eguttulatis.

Hab. ad folia viva Villaresiæ megaphyllæ in foliis pr. Puerto Leon, Misiones, Argentina. — Maculæ nullæ sed folia lenissime pallescentia.

32. Phoma Myricariæ P. Henn. in Kabat et Bubák, Fungi imp. exs. 6848 n. 455 (1907). — Peritheciis gregariis, erumpentibus, subglobosis vel sublenticularibus, atris, perforatis, 80-120  $\mu$ . diam.; sporulis oblongo-ellipticis vel ovatis, obtusis, hyalinis, eguttulatis, 3-4  $\times$  1-1  $^{1}/_{2}$ .

Hab in ramis Myricariæ dahuricæ in horto bot berolin. Dahlem Germaniæ,

33. Phoma? matecola Speg., Ann. Mus. Nac. Buenos Aires t. XVII 6844 (1908) p. 133. — Pycnidiis matrice denudata sordide cinerescente insculptis, laxe gregariis, subcarbonaceis, glabris, astomis (?), lenticularibus 100-120 μ. diam., contextu opaco indistincto; sporophoris non visis; sporulis e globoso ellipsoideis utrinque obtusis, 3-4 × 2-2,5 primo hyalinis serius perdilute chlorinulis.

Hab. ad ramos decorticatos Ilicis paraguariensis putrescentes circa San Pedro Reip. Argentinæ.

34. Phoma Yerbæ Speg., Anal. Mus. Nac. Buenos Aires, t. XVII 6345 (1908) p. 133. — Maculis nullis; pycnidiis subepidermicis lenticularibus 50-75 μ. diam., confertiusculis; contextu fusco-fumoso, subindistincte parenchymatico, ostiolo rotundo parvo perforatis; sporophoris fasciculatis 10-15 × 1,5-2, simplicibus monosporis; sporulis ellipsoideis utrinque obtusiusculis, biguttulatis 2-3 × 1-1,5, hyalinis.

Hab. in ramulis aridis Ilicis paraguariensis in silvis pr. San Pedro Reip. Argentinæ.

35. Phoma Coriariæ Speg., Fungi Chilenses (1910) p. 142. — Pycni-6346 diis sparsis v. quandoque parce gregariis, subepidermicis, globosis, 90-100 μ. diam., subcarbonaceis, vix papillato-ostiolatis; sporulis late ellipsoideis, subchlorinis, 3-4 × 2-2,5.

Hab. in ramulis siccis Coriariæ ruscifoliæ, Cerro Caracol de Concepcion Chile Amer. austr.

36. Phoma ricinicola Speg., Myc. Argent. V, p. 344, in An. Mus. 6347. Buenos Aires, XX (1910). — Pycnidiis cortice innatis, solitariis v. dense gregariis, subconfluentibus, epidermide vestitis, dein nudatis, depressis, carbonaceis, obsolete ostiolatis, 200 μ. diam., contextu opaco indistincto; sporulis sursum subrotundatis deorsum subcuneatis, 7-8 × 3-4, hyalinis.

Hab. ad ramos aridos subputrescentes Ricini communis in sæpibus circa La Plata, Argentina. — An potius Phomopsis observante auctore?

37. Phoma Heveæ Petch, Ann. Roy. Bot. Gard. Peradenya, III, Pt. I 6348 (1906) p. 5. — Pycnidiis nigris, gregariis, immersis, subprominulis, semi-globosis, 0,1-0,2 mm. diam.; sporulis ellipsoideis, hyalinis, 4-5 × 2, in cirrum viridi-flavum expulsis.

Hab. in ramis Heveæ brasiliensis, Ceylon.

38. Phoma Rohlenæ Bubák, Bull. Herb. Boiss. 2 sér., VI (1906) 6849 p. 402. — Pycnidiis æque distributis, 110-220 μ. latis, globosis, subdepressis, crasse tunicatis, immersis, apice tantum prominentibus, nigris, contextu obscure brunneo firmo; sporulis elongatis 7-10 (raro 11) × 2-3,5, rectis, utrinque angustatis, rotundatis vel tenuiter apiculatis, hyalinis, unilocularibus; sporophoris brevibus.

Hab. in caulibus siccis Euphorbiæ spinosæ prope Njegusi

Montenegro.

39. Phoma Vignæ P. Henn., in Fl. du Bas- et Moy.-Congo, Ann. 6850

Mus. du Congo, v. II, fasc. II (1907) p. 100. — Pycnidiis sparsis, subhemisphæricis, atris, vertice perforatis, 60-90  $\mu$ . diam.; sporulis ellipsoideis, hyalinis, eguttulatis, 3-3,5  $\times$  2.

Hab. in foliis Vignae (?venulosæ Bak.), Kisantu Congo, Africa (VANDERYST).

40. Phoma ononidicola Hollós, Ann. Mus. Nat. Hung. IV (1906) 6351 p. 338, tab. VIII, fig. 11. — Pycnidiis epidermide tectis, gregariis, nigris, ellipsoideis, 240-300 × 210-230, ostiolo rotundato 17-28 μ. diam.; sporulis ellipsoideis, continuis, biguttulatis, hyalinis, 10-12 × 3,5-4.

Hab. in caulibus siccis Ononidis spinosæ prope Izsák Hungariæ. — A Ph. Zopfiana All. et Ph. Ononidis All. satis diversa.

41. Phoma herbarum Westendorp — Syll. III, p. 133 — f. Glycyr-6352 rhizæ Hollós, Ann. Mus. Nat. Hung. V (1907) p. 457. — Pyenidiis gregariis, epidermide velatis, globoso-depressis, nigris, poro pertusis, 600 μ. diam., contextu parenchymatico; sporulis ellipsoideis, continuis, biguttulatis, hyalinis, 6-10 × 3-3,5.

Hab. in caulibus siccis Glycyrrhizæ echinatæ pr. Kecskemét Hungariæ. - fm. Lycopi Hollós, l. c. - Pycnidiis gregariis, epidermide velatis, globoso-depressis, poro pertusis, fuscis, 190-250 µ. diam., contextu parenchymatico; sporulis ellipsoideis, continuis, biguttulatis hyalinis, 8-10 × 3-4. — In caulibus siccis Lycopi exaltati, Kecskemét Hungaria. — var. Daturæ Poteb., Annal. Mycol. V (1907) pag. 14 et Trav. Soc. Nat. Kharkow XXXXIII (1907). — Pycnidiis 170-250  $\mu$ . cr.; sporulis 4-5  $\approx$  2. — In ramis siccis Daturæ Stramoni pr. Kursk Rossiæ. – var. Sii Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 340. - Pycnidiis 350-550 × 210-280; sporulis ellipsoideis biguttulatis, 9-10 × 3-4. In caulibus siccis Sii latifolii prope Nagy-Körös Hungariæ. --Var. tageticola (Schw.) Starb, Stud. Fries Herb. I, p. 52, t. II. f. 25 a, Sphæria tageticola Schw. — Syll. II, p. 428. — Pyenidiis plerumque aggregatis, rarissime solitariis, globoso-depressis, distincte globuloso-papillatis; sporulis majoribus, 8-10 × 2-3, biraro 3-guttulatis; sporophoris brevissimis. — In caule Tagetum cultarum in America boreali.

42. Phoma astragalicola Hollós, Ann. Mus. Nat. Hung. IV (1906) 6353 pag. 337. — Pycnidiis epidermide tectis, nigris, ellipsoideis, 280-310 ≈ 210-220, poro pertusis, contextu parenchymatico; sporulis ellipsoideis, continuis, biguttulatis, 6-8 ≈ 2,5-3.

Hab. in foliis pergameneis ex rhizomate Astragali exscapi

prope Kecskemét Hungariæ. — A Ph. Astragali-alpini Oud. et Ph. Astragali Cooke et Harkn. diversa.

43. Phoma semiplena Bubàk, Bull. Herb. Boiss. 2 ser., VI (1906) 6854 p. 407. — Pycnidiis parce gregariis v. seriatis, in maculis nigricantibus dispositis, globosis, 200-250 μ. cr. subepidermicis, dein collo 70-90 crasso prominentibus, nigris, contextu parenchymatico, collo e cellulis seriatim dispositis formato; parietibus 45-50 μ. cr., intus hyalinis inæqualibus usque ad 35 μ. cr., extus flavo-brunneis 10-15 μ. tantum cr.; sporulis variabilibus, bacillaribus, ellipsoideis v. elongatis v. breviter cylindraceis, 2-6,5 × 0,75-2, rectis v. curvulis, guttulatis, hyalinis; sporophoris papilliformibus conoideis 5 × 4, supra rotundatis, hyalinis.

 $\it Hab.$  in caulibus siccis Coronillæ Emeri prope Ulcinj Montenegro.

44. Phoma Sagittalis Jaap, Allg. Bot. Ztschr. XII (1906) p. 124. — 6355
Pycnidiis gregariis, innatis, globosis, punctiformibus, nigris, circ.
200 μ. diam.; sporulis oblongis, 4-5 × 2, biguttulatis, hyalinis.

Hab. in ramis Cytisi sagittalis, Schwarzwald in Germania, socia Pleospora Cytisi.

45. Phoma Ulicis Syd. Ann. Mycol. III (1905) p. 420. — Pycnidiis 6856 sparsis, primo tectis, punctiformibus, atris, usque ad 280  $\mu$ . d., globosis; sporulis numerosis, ovoideis, hyalinis, biguttulatis, continuis,  $6 \times 2.5$ .

Hab. in spinis Ulicis europææ, Lobbe ins. Rugiæ Germania.
46. Phoma gymnocladicola Hollós, Növényt. Këzlemén. (1907) VI, 6357 Extr. p. 3. — Pycnidiis superficialibus, gregariis, lenticularibus, fuscis, poro pertusis, 60-80 μ. diam., contextu parenchymatico; sporulis ellipsoideis, continuis, eguttulatis, hyalinis, 6-7 × 3-3,5.

Hab. in ramis siccis Gymnocladi canadensis, Kecskemét Hungariæ. — A Phoma Sophoræ Sacc. var. Gymnocladi Sacc. et Scal. differt pycnidiis et sporulis minoribus.

47. Phoma rhodocarpa Sacc., Ann. Mycol. IX (1911) p. 251. — Pycni-6858 diis laxe gregariis, fructicolis, subcutaneo-erumpentibus, globoso-depressis, obtuse papillatis, 180-200 μ. diam., nigris, firmulis; sporulis oblongo-ellipsoideis, utrinque obtusulis, rectis, 8-8,5 × 3, inæqualiter guttulatis granulosisque, hyalinis; sporophoris brevissimis acicularibus, 6-7 × 2, e basi sporifera subochracea oriundis.

Hab. in fructibus emortuis, plerumque atratis, Rosæ cultævar. « Persian Yellow » dictæ, Lyndonville, New York Amer. bor. (C. E. FAIRMAN).

48. Phoma ulcinjensis Bubák, Bull. Herb. Boiss. 2 sér., VI (1906) 6359 p. 408. — Pycnidiis parce gregariis, in maculis griseis insidentibus, globosis, supra conoideis, 70-100 μ. latis, subepidermicis, demum collo elongato prominentibus, contextu grosse celluloso nigro-brunneo; sporulis bacillaribus 3-4  $\approx$  0,75, hyalinis, unilocularibus; sporophoris brevibus hyalinis.

Hab. in caulibus siccis Rubi ameni prope Ulcinj Monte-

49. Phoma Rubi Marignoni, Micromiceti di Schio, (1909) p. 20, cum 6360 icone. — Pycnidiis gregariis 1/5-1/3 mm. diam., globoso-depressis, poro pertusis, epidermide initio velatis, dein erumpentibus, nigris, nucleo albo; sporulis ellipsoideo-globosis, hyalinis, 2 μ. diam., basidiis 15-25 × 1,5 suffultis.

Hab. in ramis emortuis Rubi cæsii prope Schio Ital. bor.

50. Phoma rubicola Sacc., Notæ myc. VIII, Ann. Myc. v. V (1906) 6361 p. 492, tab. X, fig. 9. — Pycnidiis laxe gregariis, longitudinaliter elliptico-oblongis, depressis, tectis, dein ostiolo minuto erumpentibus, nucleo farcto ex albo griseo, majusculis, 0,7 mm. long., vix 0,5 mm. latis; sporulis oblongo-ellipsoideis, utrinque rotundatis, rectis, 10-12 × 4-4,3, crassiuscule tunicatis, intus farctis, hyalinis; basidiis bacillaribus brevibus, 4 × 2, e strato proligero olivaceofusco oriundis.

Hab. in ramis emortuis corticatis Rubi fruticosi, Ambert Galliæ (Brévière, communic. P. Hariot). — Imprimis pycnidiis oblongis majusculis, sporulis crassiuscule tunicatis etc. a ceteris spe-

ciebus rubicolis dignoscitur.

51. Phoma Ruborum (West.?) P. Henn. Pilzfl. v. Lanke, II, in Ver- 6862 handl. d. bot. Vereins Brandenb. (1905) p. 221. — An Ph. Ruborum West. — Syll. III, p. 76. — Pyenidiis 130-160 p. diam. fere astomis, atro-brunneis; sporulis oblongo-ellipsoideis, minute biguttulatis, 4-6 × 2,5-3, hyalinis.

Hab. in ramis emortuis Rubi Idæi prope Utzdorf, Lanke

Germaniæ.

52. Phoma Comari Jaap, Weit. Beitr. Pilzfl. nordfries. Ins. in Schrft. 6363 Naturw. Ver. f. Schlesw.-Holst. Bd. XIV (1907) Heft 1, p. 28. — Pycnidiis sparsis, subcorticolis, prominulis dein erumpentibus, depresse globosis v. ellipsoideis, 0,4 mm. latis, ostiolo rotundato v. elongato 35 μ. circ. lato, contextu parenchymatico; sporophoris cylindraceis usque ad 20 µ. long.; sporulis elongatis, rotundatis, 5-7 imes 1,5, unilocularibus, biguttulatis, hyalinis.

Hab. in caulibus siccis Comari palustris prope Twismark in ins. Röm Frisia

53. Phoma putaminum Hollós, Növényt. Közlemén. (1907) VI, Extr. 6364 p. 3. — Pycnidiis gregariis, superficiliabus, globoso-depressis, nigris, apice ostiolo minuto, 250-300 μ. diam.; sporulis ellipsoideis, continuis, biguttulatis, dilute brunneolis, 4-5 × 2,5-3.

Hab. in putamine putrescente Armeniacæ vulgaris, Kecskemét Hungariæ.

54. Phoma persiciphila Spegazz, Rev. Ministerio Agricolt. Buenos 6365 Aires II, n. 2 (1908) p. 37 Nota, cum icon. — Maculis repando-orbicularibus, arescentibus, impressis, determinatis; pycnidiis erumpentibus laxe gregariis, pusillis, 75-90 μ. diam., late ostiolatis, coriacellis, atris, contextu parenchymatico, olivaceo; sporulis ellipsoideis v. ovatis, 5-6 × 2-3, utrinque obtusis, chlorinulis.

Hab. in ramulis Persicæ vulgaris morbum «virucla de las péras» dictum efficiens, prope La Plata Reip. Argentinæ.

55. Phoma Acænæ P. Henn., Deutsche Südpolar-Exped. Bd. VIII 6866 (1906) Extr. p. 13, tab. II, fig. 16 a-c. — Pycnidiis in caulibus decorticatis sparse gregariis, innato-superficialibus, subglobosis v. ellipsoideis, atro-olivaceis, membranaceis, 180-220 μ. diam., vertice longitudinaliter porosis; sporulis ellipsoideis v. ovoideis, obtusis, hyalinis, 4-6 ≈ 2-2,5; sporophoris haud conspicuis.

Hab. in caulibus emortuis dealbatis Acænæ adscendentis, in insul. Kerguelen (Werth).

56. Phoma cava Schulz v. Mügg. in Verh. zool. bot. Ges. Wien 6367 (1871) pag. 1248, t. 13, f. 28. — Pycnidiis innato-erumpentibus, subsuperficialibus globoso-depressis '/4-1/2 mm. diam., atro-brunneis, nigris, non papillatis, poro pertusis, intus cavis; sporulis oblongo-teretiusculis, sæpius curvulis, hyalinis, 5 × 2; sporophoris bacillaribus, parallele stipatis; sporulis triplo v. quadruplo longioribus, hyalinis.

Hab. in ramis corticatis Cydoniæ vulgaris in Hungaria.

57. Phoma rhabdosporica Alm. et Cam, Bollet. Soc. Broter. XXIV 6868 (1908-1909), Extr. p. 36. — Pycnidiis amphigenis, præcipue hypophyllis, plerumque sparsis, semiliberis, atris, lenticularibus, 800-1000 μ. diam.; sporulis elongato-ellipsoideis, integris, leniter curvulis, raro rectis, utrinque attenuato-rotundatis, biguttulatis, hyalinis, 8-10 ≈ 1; sporophoris filiformibus, achrois, rectiusculis, usque ad 45 μ. long.

Hab. in foliis dejectis Eucalypti Globuli, in horto botan. Coimbra Lusitaniæ (A. Moller).

58. Phoma polypsecadiospora d'Alm. et Da Cam., Bol. Soc. Brot. 6369 XXIV (1908-1909), Extr. p. 36. — Pycnidiis amphigenis, suborbicularibus, atris, primo diu tectis demumque poro erumpente pertusis, 120-180 μ. diam.; sporulis ovoideis v. subglobosis, hyalinis, continuis, pluriguttulatis, 10-12 × 7,5-8.

Hab. in foliis Hederæ Helicis, Coimbra, Cerca de S. Bento, Lusitania (A. MOLLER).

59. Phoma Seseli Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 340. 6370 — Pycnidiis epidermide tectis, sparsis, depresso-globosis, atrobrunneis, poro pertusis, 300-350 μ. diam., contextu parenchymatico; sporulis ellipsoideis, continuis, biguttulatis, hyalinis, 6-8 ≈ 2-2.5.

Hab. in caulibus siccis Seseli glauci prope Keckskémet Hungariæ. — Phoma acuta Sacc. et Ph. longissima (Pers.) sporulis minoribus diversæ.

60. Phoma deflectens Karst., Acta Soc. pro Fauna et Fl. fenn. XXVII 6371 4 (1905) p. 8. — Pycnidiis gregariis, denudatis, initio verisimiliter velatis, globulosis, difformibus, ostiolo papillato, atris, 0,2-0,3 mm. diam.; sporulis oblongatis. eguttulatis, 3-4 × 0,5-1.

Hab. in caulibus siccis Heraclei sibirici ad Mustiala Fenniæ.

61. Phoma Torilis Sydow, Ann. Myc. VIII (1910) p. 492, Myc. germ. 6372
n. 914. — Pycnidiis sparsis, minutis, globoso-lenticularibus, atris, 200-350 μ. diam., poro pertusis; sporulis ovato-oblongis, continuis, hyalinis, biguttulatis, 5-6 × 2.

Hab. in caulibus siccis Torilis Anthrisci, Tiefensee prope Werneuchen Germaniæ (H. Sydow).

62. Phoma ambiens Syd., Ann. Mycol. VI (1908) p. 530. — Pycni 6378 diis caulicolis v. petiolicolis, dense aggregatis et petiolos plerumque per magnam partem æquali dispositione ambientibus, applanatoglobosis, epidermide tectis, 120-200 μ. diam., atris, pariete tenui; sporulis numerosis, oblongo-ellipsoideis, utrinque rotundatis, hyalinis, eguttulatis, 2,5-3,5 × 1.

Hab. in petiolis caulibusque vivis v. languidis Prangi ulopteræ, Sultanabad Persiæ occ. (Strauss).

63. Phoma apiicola Klebahn, in Zeitschr. für Pflanzenkr. XX (1910) 6374 p. 22-33, f. 8-14 et t. II. — Pycnidiis sparsis v. gregariis, subcutaneo-erumpentibus, globulosis, nigricantibus, magnitudine va-

riis, 90-240  $\mu$ . diam. superne depressis, non v. obsolete papillatis, ore rotundo pertusis; contextu minute sed distincte parenchymatico; sporulis breviter cylindraceis, utrinque rotundatis, 3-4  $\approx$  1,2-1,8, hyalinis, plasmate sepius bipartito præditis, ex cellulis interioribus pyenidii apiculatis orientibus.

Hab. in caule petiolisque Apii graveolentis in Germania.
— Morbum gravem (Schorfkrankheit) affert. — Cfr. expositionem absolutam auctoris l. c.

64. Phoma rostellata Karst., Acta Soc. pro Fauna et Fl. fenn. XXVII, 6375 4, (1905) p. 14. — Pycnidiis globulosis, initio velatis, dein denudatis, atris, exiguis, rostro tereti, longitudine pycnidiis; sporulis ellipsoideis, circ. 2 ≥ 1.

*Hab.* in caulibus emortuis Cerefolii silvestris pr. Kuopio Fenniæ (Lönnboнм).

65. Phoma punctoidea Karst., Acta Soc. pro Faun. et Fl. fenn. 6876 XXVII, 4 (1905) p. 7. — Pycnidiis subcutaneis, erumpentibus, gregariis, atris, minimis; sporulis elongatis, 2-guttulatis, 5-6 × 2.

Hab. ad caules emortuos Angelicæ in reg. Mustialensi Fenniæ.

66. Phoma Tommasiniæ Bres. in Dalla Torre et Sarnth. Fl. Tir. IV, 6377 p. 582 (nomen nudum).

Hab. in caulibus emortuis Tommasiniæ verticillaris pr. M. Isel Innsbruck Tiroliæ (Sarnthein).

67. Phoma Tupæ Speg., Fungi Chilenses (1910) p. 144. — Maculis 6378 nullis; pycnidiis sparsis v. laxe gregariis, superficialibus, subhemisphæricis, 90-110 μ. diam., atris, subcarbonaceis, obsolete ostiolatis; sporulis subellipsoideis, utrinque obtusiusculis atque minute uniguttulatis, 4-5 × 1,5-1,75, hyalinis.

Hab. frequens in ramis siccis Lobeliæ salicifoliæ, Cerro Alegre de Valparaiso, Chile Amer. austr.

68. Phoma Lophanthi Bubák, Journ. of Myc. XII (1906) pag. 53, 6379 Septoria Lophanthi Ellis in sched. — Pycnidiis sparsis, lenticularibus, confertis, subepidermicis, dein apice prominentibus, 200-300 μ. latis, nigris, parietibus 10-15 μ. cr., contextu parenchymatico; sporulis cylindraceis 4,5-9 × 1,5-2, rectis v. curvulis, biguttulatis, hyalinis; sporophoris papilliformibus, hyalinis.

Hab. in ramis emortuis Lophanthi nepetoidis, Amanda Fairfield Co. Ohio Amer. bor. (W. A. Kellerman).

69. Phoma leonuricola Hollós, Ann. Mus. Nat. Hung. IV (1906) 6380
p. 337, tab. VIII, fig. 13. — Pyenidiis epidermide tectis, seriatim digestis, depresso-globosis, atro-brunneis, poro pertusis, 140Syll. fung. XXII (III-1913)

190 µ. diam., contextu parenchymatico; sporulis ellipsoideis, continuis, biguttulatis, hyalinis, 7-11 × 3-4.

Hab. in caulibus siccis Leonuri Cardiacæ prope Kecskemét Hungariæ. — A Phoma Leonuri Let. differt sporulis majoribus. — Var. minor Hollós, l. c. p. 338, t. VIII, f. 14. — Pycnidiis cinereis, 90-120 μ. diam.; sporulis eguttulatis 3 × 1.

70. Phoma lanuginis Fairm., Ann. Myc. VIII (1910) p. 325. — Pycni-6381 diis c. 115-150 μ. diam., globosis, erumpentibus, ostiolo 15-20 μ. præditis, sub lanugine caulis nidulantibus v. demum denudatis, atris, sub microscopio dilute brunneis; sporulis oblongis, utrinque rotundatis, continuis, 6-8 × 3-4.

Hab. in caulibus Marrubii vulgaris, Lyndonville New York Amer. bor.

71. Phoma Menthæ Strasser, Verh. k. k. zool. bot. Ges. Wien LX (1910) 6382 p. 310. — Pycnidiis subsphæroideis, epidermide tectis, ostiolo prominentibus, brunneis, 200-280 μ. diam.; massa sporarum roseola; sporulis singulis hyalinis, elongato-ellipsoideis v. ovoideis, 4-5 × 3-3,5, biguttulatis.

Hab. in caulibus Menthæ silvestris Sonntagberg Austriæ. 6888 72. Phoma Daniloi Bub., Bull. Herb. Boiss. 2 sér., VI (1906) p. 406.

— Pycnidiis æque distributis, globoso-depressis, 100-160 μ. latis, subepidermicis, demum papilliformi-erumpentibus, contextu tenui parenchymatico obscure brunneo apice obscuriore; sporulis ovoideis v. breviter ellipsoideis, 3-4 × 2-2,5 apice rotundatis, guttulatis, unilocularibus, hyalinis; sporophoris papilliformibus hyalinis.

Hab. in caulibus siccis Salviæ officinalis prope Ulcinj Montenegro.

73. Phoma Zappaniæ Speg., Myc. Argent. V, p. 346, in An. Mus. 6884 Buenos Aires, XX (1910). — Pycnidiis subseriatis, per rimulas corticis suberumpentibus, difformibus, depressis, subcarbonaceis, 100-120 μ. diam., subastomis, contextu indistincto; sporulis subcylindraceis, non v. leniter inæquilateris, eguttulatis, 6-8 × 1,5, hyalinis.

Hab. ad ramulos aridos Lippiæ nodifloræ in arvis prope La Plata, Argentina.

74. Phoma Symphyti Hollós, Ann. Mus. Nat. Hung. V (1907) p. 458. 6385 — Pycnidiis epidermide velatis, gregariis, lenticularibus, nigris, poro pertusis, 100-120 μ. diam. contextu parenchymatico; sporulis ellipsoideis, continuis, eguttulatis, hyalinis, 6-7 × 3.

Hab. in caulibus siccis Symphyti officinalis prope Kecskemét Hungariæ.

75. Phoma Onosmatis Hollós, Ann. Mus. Nat. Hung. IV (1906) 6386 p. 339. — Pycnidiis epidermide tectis, sparsis, globoso-depressis, brunneis, poro pertusis, 120-160 μ. diam., contextu parenchymatico; sporulis oblongis, utrinque rotundatis, continuis, biguttulatis, hyalinis, 4-5 × 1-1,5.

Hab. in caulibus siccis Onosmatis arenarii prope Izsák Hungariæ.

76. Phoma Alkannæ Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 336. 6887 Pycnidiis epidermide tectis, sparsis, globoso-depressis, fuscis, poro pertusis, 100-140 μ. diam., contextu parenchymatico; sporulis ellipsoideis, continuis, eguttulatis, hyalinis, 6-7 × 3-3,5.

Hab. in caulibus siccis Alkannæ tinctoriæ prope Nagy-Körös Hungariæ.

77. Phoma Physalidis Hollós, Ann. Mus. Nat. Hung. v. IV (1906) 6388 p. 339. — Pycnidiis epidermide tectis, gregariis, depresso-globosis, brunneis, poro pertusis, 140-180 μ. diam., contextu parenchymatico; sporulis ellipsoideis, continuis, eguttulatis, hyalinis, 5-7,5 × 2 3,5.

Hab. in caulibus siccis Physalidis Alkekengi, Kecskemét Hungariæ.

78. Phoma Nicotianæ Maubl., Bull. Soc. Myc. Fr. XXIII (1907) 6889 pag. 144, tab. XX, fig. 16-18. — Pycnidiis nigris, depressis, ad basim applanatis, sursum in collum crassum, epidermidem perforans, interdum pilis rigidis, septatis præditum desinentibus, 150-200 × 75; sporulis elongatis, utrinque obtusis, 2-3-guttulatis, hyalinis, 6-5 × 2,75; sporophoris acicularibus, rectis, 8-10 × 1.

Hab. in foliis Nicotianæ Tabaci, Razac Dordogne Galliæ.
Socia adsunt Sphærella Tabaci et Ophiobolus porphyrogonus.

79. Phoma Cestri Trav. et Spessa, Bol. Soc. Broter. XXV (1910) 6390 p. 175, t. II, f. 9. — Pycnidiis densiuscule sparsis, epidermide vix erumpentibus, depressis ideoque ellipsoideis, 280-300 × 250, ostiolo vix papillato et poro circulari pertuso præditis, atris, contextu minute pseudoparenchymatico, tenui, melleo; sporulis ellipsoideo-oblongis, subfusoideis, interdum inæquilateris vel subcurvulis, intus sæpe granulosis, eguttulatis, 8¹/₂-11 × 2-2¹/₂, sporophoris cylindraceis 11-18 × 1²/₂ suffultis.

Hab. in ramulis siccis Cestri Parqui in horto botanico conimbricensi Lusitaniæ (A. Moller).

80. Phoma Capsici Magnaghi — Syll. XVIII, p. 256 — f. caulicola 6891 Bianchi, Micol. prov. Mantova, Atti R. Ist. bot. Pavia ser. II, v. IX, p. 308. — Pycnidiis gregariis, globoso-depressis, 100 × 6; sporulis cylindraceis nec allantoideis; sporophoris 10 μ. circ. long.

Hab. in caulibus Capsici annui prope Redondesco Mantova

Ital. bor.

81. Phoma scrophularina Karst., Acta Soc. pro Fauna et Fl. fenn. 6392 XXVII, 4 (1905) pag. 8. — Pycnidiis subsparsis, erumpentibus, globulosis, ostiolo acuto præditis, atris, 0,1-0,2 mm. diam.; sporulis elongatis, eguttulatis, 3-4 × 0,5-1.

Hab. in caulibus emortuis Scrophulariæ nodosæ prope Mustiala Fenniæ.

82. Phoma Melampyri Karst., Acta Soc. pro Faun. et Fl. fenn. XXVII, 6898 4 (1905) p. 14. — Pycnidiis gregariis, erumpentibus, sphæroideis, cupulatis, atris, minutis; sporulis elongatis, utrinque obtusissimis, subcurvatis, eguttulatis, 6-10 × 2.

Hab. in caulibus exsiccatis Melampyri pr. Kuopio Fenniæ.
83. Phoma montenegrina Bubák, Bull. Herb. Boiss. 2 sér., VI (1906) 6394
pag. 407. — Pycnidiis sparsis, 120-160 μ. latis, fortiter depressis, nigris, subepidermicis, dein conoideo-erumpentibus, demum nudis, contextu 20-25 μ. cr. parenchymatico brunneo-nigro; sporulis cylindraceis 6-8 ≈ 2, apice rotundatis, guttulatis, hyalinis, unilocularibus; sporophoris papilliformibus.

Hab. in caulibus emortuis Pedicularis comosæ, Kom Vasojevicki Montenegro.

84. Phyllosticta Montteæ Speg., Myc. Argent. V, pag. 343, in An. 6395 Mus. Buenos Aires, XX (1910). — Pycnidiis primo cortice tectis dein nudis, subconoideis, carbonaceis, pusillis, 90-100 μ. diam., contextu indistincto, ostiolo obsoleto; sporulis cylindraceis perexiguis, eguttulatis, 4-5 × 1, hyalinis.

Hab. in ramulis emortuis subputrescentibus Montteæ aphyllæ prope Pontrerillos, Mendoza, Argentina.

85. Phoma Russeliæ Trav. et Spessa, Bol. Soc. Brot. XXV (1910) 6396 p. 176, t. II, f. 11. — Pycnidiis dense sparsis, epidermide velatis, globoso-depressis, 130-140 × 110-120, atris, poro distincto pertusis; excipulo minute celluloso, fuligineo; sporulis minutissimis, cylindraceis, utrinque obtusis, rectis, 2-guttulatis, 3-4 × ³/4-1 μ.; sporophoris indistinctis.

Hab. in ramis siccis Russeliæ junceæ in horto botanico conimbricensi Lusitaniæ (A. Moller).

86. Phoma Kaki Trav. et Spessa, Bol. Soc. Brot. XXV (1910) p. 176 6897 tab. I, f. 6. — Pycnidiis hypophyllis, hinc inde gregariis, initio epidermide tectis, dein erumpentibus, subglobosis, 80-100 μ. diam., atris, excipulo minute pseudoparenchymatico, fuligineo-griseo; sporulis minutissimis, bacillaribus, utrinque obtusis, 2-guttulatis, rectis, 3-4 × 1/2-3/4.

Hab. in foliis siccis Diospyri Kaki in horto botanico conimbricensi Lusitaniæ (A. Moller).

87. Phoma dipsacina Bubák, Beitr. Pilzfl. Ung. in Növényt. Közle-6898 mények (1907) Heft. 4, Extr. p. 28. — Pyenidiis in maculis nigricantibus, parvis, elongatis, confertis, immersis, globosis, 100–130 μ. diam., nigris, contextu crasso parenchymatico obscure brunneo; sporulis cylindraceis v. elongatis, 6,5-9 × 2-3,5, utrinque rotundatis, guttulatis, olivaceo-brunneis; sporophoris breviter papilliformibus.

Hab. in caulibus emortuis Dipsaci pilosi, Csernatal prope Herculesfürdö Hungariæ.

88. Phoma chrysanthemicola Hollós, Ann. Mus. Nat. Hung. (1907) 6899 V, p. 456. — Pycnidiis gregariis, superficialibus, depresso-globosis, fuscis, poro pertusis, 200-250 μ. diam.; contextu parenchymatico; sporulis oblongo-ellipsoideis, continuis, biguttulatis, hyalinis, 5-6 × 1,75-2.

Hab. in caulibus siccis decorticatis Chrysanthemi indici culti, Kecskemét Hungariæ. — A Ph. Chrysanthemi Voglino dignoscitur sporulis minoribus.

89. Phoma Zinniæ Speg., Myc. Argent. V, pag. 347, in An. Mus. 6400 Buenos Aires, XX (1910). — Maculis nullis; pycnidiis laxe gregariis subepidermicis, atris, membranaceis, modice ostiolatis, 60-90 μ. diam., contextu dense minuteque parenchymatico, fuligineo; sporulis subcylindraceo-ellipsoideis, utrinque obtusissimis, 4-8 × 2,5-3, eguttulatis v. rarius 2-guttulatis, hyalinis.

Hab. ad caules aridos Zinniæ paucifloræ prope Villa Casilda, Argentina.

90. Phoma Centrophylli Speg., Myc. Argent. V, p. 343, in An. Mus. 6401 Buenos Aires XX (1910). — Pycnidiis sparsis v. laxe gregariis, hypodermicis, conoideo-hemisphæricis, minute papillato-ostiolatis, carbonaceis, 100-120 μ. diam., contextu indistincto; sporulis utrinque plus minusve acutiuscule rotundatis, subellipticis, grosse biguttatis, 9-10 × 2,5-3, hyalinis.

Hab. ad caules aridos Centrophylli lanati prope La Plata, Argentina.

91. Phoma helichrysicola Hollós, Növényt. Közlemén. (1907), Extr. 6402 p. 3. — Pyenidiis superficialibus, sparsis, fuscis, ellipsoideis, 100-110 × 70-90, poro pertusis, contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, continuis, biguttulatis, hyalinis, 3-4 × 1.

Hab. in caulibus siccis decorticatis Helichrysi arenarii socia Pleospora Helichrysi (cujus videtur status pycnidicus) prope Kecskemét Hungariæ.

92. Phoma Echinopis Hollós, Ann. Mus. Nat. Hungar. VIII (1910) 6408 p. 3. — Pycnidiis seriatim dispositis, epidermide velatis, fuscis, ellipsoideis, 270-300 × 170-200, poro pertusis, contextu celluloso; sporulis ellipsoideis, utrinque acuminatis, continuis, biguttulatis, hyalinis, 8-10 × 3-4.

Hab. in caulibus siccis Echinopis ruthenici prope Kecshemét Hungariæ.

93. Phoma Bidentis Hollós, Ann. Mus. Nat. Hungar. VII (1909) 6404 p. 52. — Pycnidiis epidermide velatis, gregariis, globoso-depressis, papillatis, atris, 140-180  $\mu$ . diam., contextu celluloso; sporulis cylindraceis, utrinque rotundatis, continuis, biguttulatis, hyalinis,  $4-5 \approx 1-1.5$ .

Hab. in caulibus siccis Bidentis tripartiti prope Kecskemét Hungariæ.

94. Phoma Lampsanæ Karst, Acta Soc. pro Fauna et Fl. fenn. 6405 XXVII, 4 (1905) p. 7. — Pycnidiis gregariis, velatis, dein denudatis, ostiolo conoideo, acuto, atris, circiter 0,2 mm. diam.; sporulis elongatis, eguttulatis, 4-6 × 1-1,5.

Hab. in caulibus aridis Lampsanæ communis, Tammela Fenniæ — Ph. acutæ affinis sed pycnidiis minoribus sporulisque angustioribus diversa.

95. Phoma Scorzoneræ Hollós, Ann. Mus. Nat. Hungar. VII (1909) 6406 p. 52. — Pycnidiis epidermide tectis, sparsis, ostiolo conico erumpentibus, globosis, nigris, 240-280 μ. diam., contextu celluloso; sporulis cylindraceis, utrinque obtusis, continuis, biguttulatis, 5-6 ≈ 2-2,5.

Hab. in caulibus siccis Scorzoneræ purpureæ, Nagy-Körös Hungariæ.

96. Phoma Chondrillæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 6407
 p. 337, tab. VIII, fig. 12. — Pycnidiis epidermide tectis, grega-

riis, ostiolo conico erumpentibus, globosis, nigris, 210--280  $\mu$ . d, contextu parenchymatico; sporulis oblongis, continuis, hyalinis, biguttulatis, inferne acutatis, 9-10  $\approx$  3-3,5; sporophoris filiformibus, sporulis duplo longioribus.

Hab. in caulibus siccis Chondrillæ junceæ prope Izsák Hungariæ.

97. Phoma Xanthii Hollós, Ann. Mus. Nat. Hung. VI (1908) p. 580. 6408
 — Pycnidiis epidermide tectis, gregariis, lenticularibus, fuscis, poro pertusis, 170-210 μ. diam., contextu celluloso; sporulis ellipsoideis, continuis, biguttulatis, hyalinis, 5-6 × 2.

Hab. in caulibus siccis Xanthii strumarii prope Kecskemét Hungariæ.

98. Phoma subglobosa Speg., Myc. Argent. V, p. 345, in An. Mus. 6409
Buenos Aires, XX (1910). — Maculis nullis; pycnidiis epiphyllis,
hypodermicis, prominulis, laxe gregariis, coriacellis, atris, 120-150
μ. diam.; contextu indistincto, atro, subopaco, ostiolo imperspicuo;
sporulis e globoso ovoideis, inferne acutatis, grosse 1-guttulatis,
10-12 × 9-11, hyalinis.

Hab. ad folia dejecta putrescentia Viburni Tini in horto Santa Catalina prope Buenos Aires, Argentina.

99. Phoma oleracea Sacc. — Syll. III, p. 135 — f. Bryoniæ Sacc., 6410 Ann. Mycol. VII (1909) p. 435. — Pycnidiis 300-330 μ. diam.; sporulis 4-5 × 2-2,5.

Hab. in caulibus emortuis Bryoniæ albæ, Tamsel Ger-(P. Vogel).

100. Phoma Siolmatræ Speg., Myc. Argent. V, p. 345, in An. Mus. 6411 Buenos Aires, XX (1910). — Maculis nullis; pycnidiis hypodermicis, hinc inde laxe gregariis, membranaceis, ostiolo minuto rotundo pertusis, 100-120 μ. diam., sublenticularibus; contextu parenchymatico fuligineo; sporulis subellipticis, non v. minute biguttulatis, hyalinis, 4-5 × 2.

Hab. in epicarpio arido Siolmatræ brasiliensis in silvis prope Ledesma Argentinæ.

101. Phoma oleandrina Delacroix, Bull. trim. Soc. Myc. de France 6412 vol. XXI (1905) p. 186, fig. V. — Maculis fulvo-lividis, latis, indeterminatis; pycnidiis sub epidermide in parenchymate immersis, pariete mox tenuiore, mox crassiore ex contextu parenchymatico, plerumque altioribus quam latioribus, 130-180 ≈ 100-150, colore dilutiore, fulvo, ostiolo vix prominente pertusis; sporulis inæquilateralibus etiamque interdum medio constrictulis, hyalinis, gra-

nulatis, eguttulatis,  $3.5 \approx 2.5-3$ ; sporophoris exiguis, basi incrassatis, apice obtusatis,  $3-4 \approx 2$  circiter.

Hab. in foliis teneris et in parte super ramorum juniorum Nerii Oleandri culti circa Parisios, cui graviter nocet. — A Ph. Nerii, neriicola, heteromorpha certe valde differt.

102. Phoma Pirolæ (Ehrenb.) Rostr. Fgi. Groenl. p. 569 (Medd. on 6418 Grönland. III (1888)) Depazea Pirolæ (Ehrenb.) Rab. — Syll. IV,
p. 64 — Sphæria Pirolæ Ehrenb. Berol. p. 29. Observante cl. Rostr. l. c. sporulæ sunt fusoideo-lunulatæ, curvæ, 7-8 \* 1-2.

Hab. in foliis Pirolæ grandifloræ in Groenlandia. — An Phyllostictæ species? Sec. cl. Allescher fungillus Ehrenbergii est probabiliter Phyllosticta Pirolæ Allesch. — Cfr. Syll. XIV, p. 858 — sed hæc ob sporulas perexiguas 3-4 μ. longas omnino differt a præsenti fungo Rostrupiano; tamen quid sit Sphæria Pirolæ Ehrenb. adhuc incertum manet, nisi exempl. originalia comparari possint.

103. Phoma radicis-Andromedæ Ternetz Carola, Jahrb. f. wissensch. 6414 Bot. XLVI (1907). — Pycnidiis diu flavo-brunneis, serius nigricantibus, distincte papillatis, subæqualibus, 78 μ. cr., 78 μ. alt. (inclusa papilla), poro singulo pertusis; cirro mox vehementer diffracto; sporulis ellipsoideis, 4 × 2,6, hyalinis, eguttulatis.

Hab. in radice Andromedæ sp. in Helvetia. — Conidia muriformia, atro-brunnea, solitaria v. seriata et tunc indistincte inter se separata.

104. Phoma radicis-Tetralicis Ternetz, Jahrb. f. wissensch. Bot. XLIV 6415 (1907). — Pycnidiis atris, carbonaceis, æqualibus, 137 μ. diam., 157 μ. altis, poro unico pertusis, obsolete papillatis; cirro firmo basi crasso, demum facile evanido; sporulis oblongis, 5 × 1,3-2, hyalinis, debiliter refringentibus, eguttulatis.

Hab. in radice Ericæ Tetralicis in Germania.

105. Phoma radicis-Vaccinii Ternetz, Jahrb. f. wissensch. Bot. XLIV 6416 (1907). — Pycnidiis diu dilute brunneis, serius atris, sat conformibus, 80 μ. diam., 76 μ. alt., poro singulo sed interdum 2-3 poris dehiscentibus, distincte papillatis; cirro laxo sed satis firmo; sporulis ellipsoideis, 5 × 2-3, hyalinis, ætate brunneolis, uno polo v. utrinque 1-guttatis.

Hab. in radice Vaccinii sp. in Germania. — Conidia atrobrunnea, muriformia, solitaria v. seriata et tunc inter se acute distincta.

106. Phoma pilulifera Sacc. Notæ myc. VIII, Ann. Myc. IV (1906) 6417

p. 492, tab. X, fig. 8. — Pycnidiis laxe gregariis, subcutaneis et epidermide supra pycnidium atrata tectis, globoso-depressis, 150-180  $\mu$ . diam., poro orbiculari non v. vix papillato vix erumpentibus; contextu minute parenchymatico, fuligineo; sporulis globosis, intus minute granulosis, 6  $\mu$ . diam., hyalinis; basidiis bacillaribus 5-7  $\approx$  1, hyalinis.

Hab. in ramulis emortuis Vaccinii Myrtilli, Ambert Galliæ (Bréviere, comm. P. Hariot). — Præsertim sporulis perfecte globosis dignoscenda species.

107. Phoma radicis-Oxycocci Ternetz, Jahrb. f. Wissensch. Bot. 6418 XLIV (1907). — Pycnidiis atro-brunneis, magnitudine ludibundis, 176-196 μ. cr., 176-196 μ. altis, poro unico pertusis, leviter papillatis; cirro firmo; sporulis oblongis, 4-5 × 2, utrinque guttula oleosa præditis.

Hab. in radice Vaccinii Oxycocci in Germania.

108. Phoma radicis-Ericæ Ternetz, Jahrb. f. Wissensch. Bot. XLIV 6419 (1907), — Pycnidiis nigro-brunneis, subæqualibus, 107 μ. cr., 157 alt., obsolete papillatis, serius poris 1-5 dehiscentibus, cirro crasso, firmo; sporulis regulariter oblongis 3,9 × 1,3, hyalinis.

Hab. in radice Ericæ sp. in Germania.

109. Phoma ligustrina Sacc., Ann. Mycol. VI (1908) p. 565. — Py- 6420 cnidiis dense gregariis, subcutaneo-erumpentibus, globoso-conoideis, nigricantibus, intus griseo-flavidis, ½ mm. diam.; sporulis fusoideis, curvulis, 11 × 2,5-3, hyalinis (guttulis non visis); sporophoris filiformibus, fasciculatis, 18-20 × 1-1,5.

Hab. in ramis corticatis Ligustri Ibotæ, socio st. ascophoro Diaporthe ligustrina (cfr.), Lyndonville New York Amer. bor. (FAIRMAN).

110. Phoma Armeriæ Jaap, Weit. Beitr. Pilzfl. nordfries. Ins., Schr. 6421 Naturw. Ver. f. Schlesw.-Holst. Bd. XIV (1907) Heft I, p. 28. — Pycnidiis gregariis, subcorticolis, corticem pustulatim inflantibus, diu tectis, nigris, lenticularibus, 0,2-0,3 mm. latis, ostiolo elongato 40 μ. circ. lato; sporulis elongatis, 3-4 × 1-1,5, biguttulatis, unilocularibus, hyalinis.

Hab. in pedunculis siccis Armeriæ vulgaris prope Wyk in ins. Föhz, Frisia.

111. Phoma bacterioides Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 6422 p. 408. — Pycnidiis sparsis, globosis v. subdepressis, 65-80 μ. cr., nigris, subepidermicis, demum poro brevi papilliformi apertis, contextu grosse parenchymatico pallide flavo-brunneo, supra circa po-

rum obscuriore; sporulis bacilliformibus  $2 \times 1$ , hyalinis, unilocularibus; sporophoris subconoideo-papilliformibus.

Hab in ramulis siccis Osyridis albæ prope Ulcinj Mon-

tenegro.

112. Phoma Suædæ Jaap, Weit. Beitr. Pilzfl. nordfries. Ins., Schrft. 6428 Naturw. Ver. f. Schleswig-Holst. Bd. XIV (1907) Heft I, p. 27. — Pycnidiis gregariis, mox erumpentibus et superficialibus, punctiformibus, minutis, nigris, 0,2 mm. circ. cr., ostiolo breviter conoideo 15 μ. circ. lato, dein medio collabescente, contextu flavo-brunneo parenchymatico, circa ostiolum obscuriore; sporulis ellipsoideis, elongatis v. breviter cylindraceis, raro ovoideo-elongatis, subclavatis, rotundatis, 5-10 × 3-4, rectis v. curvulis, plerumque grosse 2- raro minute 3-4-guttulatis, hyalinis, demum flave-scentibus.

Hab. in ramulis siccis Suædæ maritimæ prope Norddorf in ins. Amrum, Frisia.

113. Phoma Lomatiæ Speg., Fungi Chilenses (1910) p. 143. — Ma-6424 culis fuscescentibus ægre perspicuis diffusis, 10-15 mm. diam., hypophyllis; pycnidiis plus v. minus confertiusculis, epidermide tectis, submembranaceis, subglobosis, 60-75 μ. diam., ostiolo pro ratione maximo perforatis; sporulis cylindraceis, plerumque rectis, 2 × 0.75, hyalinis.

Hab. in foliis emortuis Lomatiæ obliquæ in silvaticis Cerro Caracol de Concepcion Chile, Amer. austr.

114. Phoma Guevinæ Speg, Fungi Chilenses (1910) p. 142. — Ma-6425 culis nullis; pycnidiis parenchymate innatis, epidermide velatis, sæpius hypophyllis, numerosis, confertiusculis, lenticulari-subconoideis, 75-100 μ. diam., subcarbonaceis, vix papillato-ostiolatis: sporulis cylindraceis, utrinque rotundatis, rectis v. curvulis, 3 × 1, hyalinis.

Hab. in foliis siccis subputrescentibus Guevinæ Avellanæ in silvaticis Cerro Caracol de Concepcion Chile, Amer. austr.

115. Phoma Tricyclæ Speg., Myc. Argent. V, p. 346, in An. Mus. 6426 Buenos Aires XX (1910). — Foliicola, amphigena, epidermide tecta; pycnidiis plagulas suborbiculares nigrescentes v. fuscescentes 1-3 mm. latas efficientibus, snbglobosis, 100-120 μ. diam., obsolete ostiolatis, contextu minute denseque parenchymatico; sporulis ellipsoideis, 2-2,5 × 1, eguttulatis, hyalinis.

Hab. ad folia dejecta putrescentia Tricyclæ spinosæ in montanis Potrerillos pr. Mendoza, Argentina.

116. Phoma Zelintneri Koord., Botan. Untersuch. Java (1907) p. 205, 6427 fig. 26. — Pycnidiis corticolis, gregariis, globoso-depressis, subcutaneis, vix erumpentibus, nigris, loculo irregulari 50-130 μ. lato; sporulis 7-10 × 3-5, hyalinis, fusoideis, utrinque acutis; sporophoris filiformibus, rectis v. curvulis 20-35 μ. longis.

Hab. in cortice Fici elasticæ, quam valde vexat, prope Kaliwiro prov. Kedu Java (Koorders). — Socia sunt Diplodia Wurthii et Fusicoccum Elasticæ.

117. Phoma Almeidæ Sacc. et Trav. — Syll. XX, p. 350, Phoma 6428 sp. d'Alm. et S. Cam. in Rev. Agron. IV (1906) p. 137, t. III, f. 1-2 et in Bol. Soc. Brot. XIV (1909) p. 38. — Pycnidiis sparsis, globoso-depressis, subcutaneo erumpentibus, olivaceo-farctis, sursum deorsumque hic illic intus elevatis sed non distincte plurilocellatis; sporulis breviter fusoideis, acutiusculis, hyalinis, biguttulatis, 8-10 × 2,5-3; sporophoris filiformibus, curvulis, sporulâ duplo-triplo longioribus suffultis.

Hab. in cortice Platani occidentalis pr. Coimbra Lusilaniæ. — An diversa a Ph. scabra v. Ph. notha, ipsis auctoribus observantibus?

118. Phoma frigida Sacc., Ann. Mycol. VI (1908) p. 561. — Pycni-6429 diis dense et late gregariis, subcutaneis, vix erumpentibus, globulosis, atris, 300-400 μ. diam., nucleo albido; sporulis fusoideo-oblongis, utrinque obtusulis, 8 × 2,8-4, hyalinis, farctis, non guttulatis; sporophoris filiformibus, exiguis, sporulâ brevioribus.

Hab. in ramis junioribus Populi Tremulæ frigore, ut videtur, necatis, Rüdnitz pr. Bernau Germaniæ (H. Sydow). — Subaffinis Phomæ Mororum.

119. Phoma canadensis Voglino, in Annal. R. Accad. Agricolt. To- 6480 rino, LIII, 1910 (1911) p. 360. — Pycnidiis subcorticalibus, prominulis, liberis, minutis, 80-100  $\mu$ . latis, globosis, raro ovoideis, nigris, diu clausis, inde pertusis; sporulis hyalinis, ellipsoideis v. ovoideis, minutissimis,  $2.5-3 \times 1-1.5$ , rarissime  $4 \times 2$ , plerumque  $3 \times 1$ , sporophoris brevissimis.

Hab. in cortice lacero Populi canadensis, inducens pustulas cancerosas, Santena Pedemontii, Italia bor.

120. Phoma platysperma Peck, Bull. Torr. Bot. Cl. XXXVI (1909) 6431 p. 336. — Pyenidiis minutis 0,5 mm. latis, numerosis, epidermide tectis, erumpentibus, nigris; sporulis subglobosis aut late ellipsoideis, 10-12 × 8-10.

Hab. in ramis Salicis nigræ, River Forest Chicago Illinois Amer. bor. (E. T. et S. A. HARPER).

121. Phoma Pterocaryæ Syd., Ann. Mycol. IV (1906) pag. 344. — 6482 Pycnidiis late densiuscule gregariis (non cæspitosis), globoso-depressis, subcutaneis, demum vertice obtuso vix pertuso erumpentibus, 0,5 mm. diam. atris; sporulis oblongis, rectis, continuis, hyalinis, eguttulatis, 7-9 × 2-3; sporophoris nullis vel obsoletis.

Hab in ramis Pterocaryæ caucasicæ, pr. Scholam silviculturæ Tamsel Germaniæ (P. Vogel).

122. Phoma proximella Sacc., Not. Myc. VII, in Ann. Myc. IV (1906) 6433 pag. 274. — Pycnidiis gregariis, innato-erumpentibus, globulosis 150-180 μ. diam., interdum irregularibus, nigris, vix papillosis, poro pertusis; contextu membranaceo, olivaceo-fuligineo, ex cellulis 5-7 μ. diam. formato; sporulis minutissimis, ovoideis, inæquilateris, 2-3 × 0,7-1, hyalinis; sporophoris brevissimis, subnullis.

Hab. in conis emortuis Pini silvestris prope Parisios in Gallia (P. Hariot). — Ab affini Phoma Pinastri differt contextu haud atro-violaceo, ostiolo subrotundo, sporulis adhuc angustioribus etc.

123. Phoma bohemica Bubák et Kabát, Naturw. Ztschr. f. Land- u. 6434 Forstwirtsch. (1910) p. 320, fig. 2, Macrophoma bohemica Bub. et Kab. — Pycnidiis subepidermicis, biserialibus, globosis, basi applanatis, 150-200 μ. latis, nigris, opacis, contextu crasso, nigro-fusco, pseudoparenchymatico, intus paulatim hyalino, papilla conica erumpentibus, ibique irregulariter dehiscentibus; sporulis oblongis v. fusiformibus, 10-16 × 4-6,5, hyalinis, continuis; sporophoris cylindricis, brevibus, ad apicem attenuatis, hyalinis v. parum luteolis.

Hab. in foliis Abietis albæ, Turnau Bohemiæ. — Socia adest Rehmiellopsis bohemica Bub. et Kab.

124. Phoma Welwitschiæ Massee, Kew Bull. (1910) p. 253. — Py. 6435 cnidiis erumpenti-superficialibus, dense aggregatis, hemisphæricis, atris, contextu dense parenchymatico fuligineo, ostiolo minuto, pertuso præditis, 150-180 μ. diam.; sporulis ellipsoideis utrinque obtusiuscule rotundatis, grosse 2-guttulatis, hyalinis, 5 × 3, sporophoris simplicibus 8-10 × 1,5 fultis.

Hab. in apicibus emortuis foliorum Welwitschiæ mirabilis, Damara pr. Welwitsch, Africa trop. (W. C. WORSDELL).

125. **Phoma roseo-nigra** Nadson et Sulimà Gamoilo, Bull. Jard. Im- 6436 per. Bot. St. Petersb. VIII (1908) p. 344 (rossice).

Hab. in ramis? ex fundo lacus Ladoga prope St. Petersbourg

Rossiæ. — Nisi male interpretamur, pycnidia sunt intus rosea,  $\frac{1}{5}$ - $\frac{1}{4}$  mm. diam.; sporulæ  $7 \approx 2.8-3.2$ .

126. Phoma musicola Speg., Myc. Argent. V, p. 344, in An. Mus. 6487 Buenos Aires, XX (1911). — Pycnidiis laxe gregariis, subepidermicis, lenticularibus, membranaceis, ostiolo rotundo perforatis, atris, 80-100 μ. diam., contextu olivaceo indistincte parenchymatico; sporulis ellipsoideis, eguttulatis, 4-5 × 1,7-2, hyalinis, raro subinæquilateris.

Hab. ad rachides aridas foliorum Musæ paradisiacæ in hortis Oran, Jujui, Argentina.

127. Phoma Neottiæ Hollós, Ann. Mus. Nat. Hungar. VIII (1910) 6438 p. 3. — Pycnidiis sparsis, epidermide velatis, lenticularibus, ochraceis, poro pertusis, 100-120 μ. diam., contextu celluloso; sporulis ellipsoideis, continuis, eguttulatis, hyalinis, 4,5-5 × 3.

Hab. in caulibus siccis Neottiæ nidi-avis prope Kecskemét Hungariæ.

128. Phoma araucana Speg., Fungi Chilenses (1910) p. 141. — Ma-6439 culis nullis; pycnidiis amphigenis confertis, parenchymate foliorum innatis, atris, subglobosis, 40-50 μ. diam., membranaceis; sporulis ellipsoideis, hyalinis, utrinque rotundatis, 2-3 × 1.

Hab. in foliis emortuis Libertiæ ixioidis prope Ciudad de Valdivia Chile, Amer. austr.

129. Phoma conimbricensis Trav. et Spessa, Bol. Soc. Brot. XXV 6440 (1910) p. 175, t. II, f. 8. — Pycnidiis in areolis dealbatis gregariis, epidermide velatis, poro distincto pertusis, globoso-depressis, 125-175 μ. diam., fuligineo-atris, excipulo minute pseudoparenchymatico, fuligineo-melleo; sporulis ellipsoideo-oblongis, intus plus minusve granulosis, rarius biguttulatis, 8-11 × 2-2¹/₂, rectis v. leniter curvulis; sporophoris indistinctis.

Hab. in scapis siccis Gladioli cardinalis in horto botan. conimbricensi Lusitaniæ (A. MOLLEE).

130. Phoma Puyæ Speg., Fungi Chilenses (1910) p. 144. — Maculis 6441 nullis; pycnidiis pusillis parenchymate innatis, epiphyllis, epidermide tectis, subglobosis, 75-100 μ. diam, atris, minute ostiolatoperforatis; sporulis ellipsoideis v. obovatis, hyalinis v. subchlorinis eguttulatis, 4-6 × 2,5-3.

Hab. in foliis siccis emortuis Puyæ cæruleæ, Cerro San Cristobal de Santiago Chile Amer. austr.

131. Phoma cacheutensis Speg., Myc. Argent. V, p. 341, in Anal. 6442 Mus. Buenos Aires XX (1910). — Maculis nullis; pycnidis hy-

pophyllis hypodermicis, dense constipatis, subglobosis, membranaceo-coriacellis, papillato-ostiolatis, 90-100 µ. diam., crustam nigram 5-15 mm. diam. prominulam erumpentem formantibus, glabris, contextu obscure parenchymatico; sporulis subellipsoideis, sæpe leniter inæquilateris, 4-6 × 2-3, hyalinis.

Hab. ad folia arida Dyckiæ sp. in rupestribus montanis pr.

Cacheuta, Argentina.

132. Phoma Bromeliæ Trav. et Spessa, Bol. Soc. Brot. XXV (1910) 6448 p. 175, t. II, f. 7. — Pycnidiis dense sparsis, primum epidermide velatis dein erumpentibus, globoso-depressis,  $120-140 \times 100-110$ , atris, excipulo minute pseudoparenchymatico, fuligineo; sporulis ovoideo-fusoideis, rectis,  $8-9 \times 2^1/_2-3$ ; sporophoris nullis distinctis.

Hab. in areis dealbatis foliorum exsiccatorum Bromeliæ Acangæ in horto botanico conimbricensi Lusitaniæ (A. Moller).

133. Phoma yuccicola Pat. Add. Cat. Champ. Tunis. in C. R. du 6444 Congrès des Soc. Sav. 1908 (1909) p. 254. — Pycnidiis præcipue epiphyllis, sparsis, erumpentibus, atris, coriaceis, globosis, 60-150 μ. diam., poro pertusis, nucleo albo; sporulis numerosissimis, ovoideis, hyalinis,  $4-5 \approx 2$ .

Hab. in foliis emortuis Yuccæ, Alger (Trabut). — Ab affinibus Ph. Yuccæ et Ph. gloriosa sporulis brevissimis distinguitur.

134. Phoma aloicola Trinchieri, Rend. R. Acc. Sc. Fis. Matem. Na. 6445 poli (1909) fasc. 3-4, p. 90. — Pycnidiis sparsis, numerosis, minutis, evidentibus, brunneis, innato-erumpentibus, oblongis, poro pertusis, 73-225 μ. diam., 49-147 μ. altis; excipulo membranaceo, flavescenti-fusco præditis; sporophoris brevissimis, subnullis, hyalinis; sporulis ellipsoideo-oblongis, utrinque obtusiusculis vel rarius subsphæroideis, eximie 2-guttulatis, hyalinis,  $4.5-7 \approx 2-4.5$ .

Hab. in scapis siccis Aloës brevifoliæ Mill., in Horto regio botanico neapolitano Ital austr. (Trinchieri). — A Ph. Debeauxiana Sacc. macularum constanti defectu, pycnidiorum forma et dispositione, sporularum magnitudine et matrice (in scapis) o-

mnino differt.

135. Phoma herbarum West. — Syll. III, pag. 133 — f. Antherici 6446 Hollós, Ann. Mus. Nat. Hungar. VIII (1910) p. 3. — Pycnidiis gregariis epidermide velatis, globulosis, fuscis, poro pertusis, 120-140 µ. diam., contextu celluloso; sporulis ellipsoideis, continuis, eguttulatis, hyalinis, 7-8 × 3-3,5.

Hab. in caulibus siccis Antherici Liliaginis prope Nagy-

Körös Hungariæ.

136. Phoma Zuccagniæ Speg., Myc. Argent. V, p. 347, in An. Mus. 6447 Buenos Aires, XX (1910). — Pycnidiis sparsis, superficialibus, minutis, siccis, e globoso collabascentibus, late ostiolatis, udis subglobosis, minute papillatis, 120-150 μ. diam.; sporulis suballantoideis, rectis curvulisve, utrinque obtusiusculis, 2-3 × 0,7-1, hyalinis; sporophoris simplicibus, 15 × 1, fasciculatis, hyalinis.

Hab. ad ramos aridos decorticatosque Zuccagniæ punctatæ

in montanis Potrerillos pr. Mendoza, Argentina.

137. Phoma platycarpa Bubák, Bull. Herb. Boiss. 2 sér., VI (1906) 6448 pag. 407. — Pycnidiis sparsis, ellipsoideis v. elongatis, depressis, lenticularibus, 200-250 μ. latis, nigris, subepidermicis, demum prominentibus, contextu basi pallide castaneo-brunneo, supra crassiori nigrescenti; sporulis fusoideis 8-11 × 2, apice angustatis, medio guttulatis, hyalinis, unilocularibus; sporophoris cylindraceis, 15-20 × 1, in massa flavescentibus, simplicibus, hyalinis.

Hab. in caulibus siccis Asphodeli microcarpi pr. Ulcinj

Montenegro.

138. Phoma bulbicola Hollós, Ann. Mus. Nat. Hung. V (1907) p. 457. 6449
— Pycnidiis epidermide velatis, sparsis, lenticularibus, nigris, 240-280 μ. diam., contextu parenchymatico; sporulis ellipsoideis, continuis, biguttulatis, hyalinis, 4-5 ≈ 2,5-3.

Hab. in bulbis Muscari comosi pr. Kecskemét Hungariæ.

139. Phoma Heleocharidis Karst., Acta Soc. pro Faun. et Fl. fenn. 6450 XXVII 4 (1906) p. 9. — Pycnidiis sparsis, innatis, dein leviter erumpentibus, sphæroideo-applanatis, atris, minutis; sporulis oblongatis, 8-10 \( \times 3-4. \)

Hab. in calamis aridis Heleocharidis palustris, Tammela, Fennia.

140. Phoma Usteriana Spegazz., Fungi Paulist., Rev. Mus. La Plata, 6451 t. XV (1908) p. 36. — Maculis nullis; pycnidiis dense seriatim constipatis, primo epidermide velatis, dein erumpenti-prominulis, ex hemisphærico depressis, 75-90 μ. diam., ostiolo latiusculo perforatis, membranaceis, contextu parum distincto olivaceo; sporulis rectis v. leniter curvulis, utrinque obtusiusculis, 6-8 ≈ 2, eguttulatis, hyalinis.

Hab. ad folia Oryzæ sativæ in Horto Escola Polytechnica Sao Paulo, Brasilia (USTERI).

141. Phoma glumicola Spegazz., Fungi Paulist., Rev. Mus. La Plata 6452
t. XV, p. 36. — Maculis cinerascentibus parum manifestis sæpe totam matricem occupantibus; pycnidiis innato-erumpentibus, laxe

gregariis, lenticularibus, 75-100 µ. diam., glabris, atris, ostiolo latiusculo perforatis, tenui-membranaceis, contextu grosse parenchymatico, fuligineo; sporulis rectis v. leniter inæquilateralibus, utrinque obtusius culis,  $4-5 \times 2$ , eguttulatis.

Hab. ad glumas Oryzæ sativæ in Horto Escola Polytechnica Sao Paulo, Brasilia (USTERI). — Status sporulifer Didymellæ

glumicolæ Speg. l. c.

142. Phoma Milii Alm. et Cam., Bol. Soc. Brot. XXV (1908-1909), 6453 Extr. p. 34. — Pycnidiis sparsis, globoso-depressis, atris, immersis, primum diu epidermide tectis, demum ostiolo pertuso erumpentibus, 250-300 μ. d.; sporulis oblongo-ellipsoideis v. subclaviformibus, hyalinis, continuis, sursum rotundatis, deorsum attenuatis, plerumque rectis v. raro lenissime curvulis, biguttulatis, 7,5-10 \* 3-4; sporophoris simplicibus, plus v. minus cylindraceis, subæquilongis fultis.

Hab. in culmis Milii multiflori Cav. prope Coimbra, cerca de S. Bento Lusitania (A. Moller). — Socia Pyrenochæta lepto-

spora Sacc. et Br.

143. Phoma Stenotaphri Speg., Myc. Argent. V, p. 345, in An. Mus. 6454 Buenos Aires, XX (1910). — Pycnidiis laxe gregariis, innatis, lenticularibus, eximie ostiolatis, pertusis, membranaceis, 80-90 µ. d., contextu grosse parenchymatico, olivaceo; sporulis ellipsoideis non v. minute biguttulatis, utrinque subacutiusculis,  $4-5 \times 1,5$ , rectis curvulisve, hyalinis.

Hab. ad rhachides florales Stenotaphri americani in

hortis La Plata, Argentina.

144 Phoma muscicola A. L. Smith, Trans. Brit. Mycol. Soc. III 6455 (1910) p. 221. — Peritheciis minutis 120-150 μ. diam., poro minuto dehiscentibus; sporulis oblongo-ellipsoideis, minutis, hyali-

Hab. in capsulis muscorum (Bryii spp.), Lancashire Bri-

tanniæ.

145. Phoma Mycenastri Hollós, Ann. Mus. Nat. Hung. IV (1906) 6456 p. 534. — Pycnidiis dense gregariis, lenticularibus, fuscis, poro pertusis, 50-80 μ. diam, contextu parenchymatico; sporulis ellipsoideis, continuis, eguttulatis, hyalinis,  $5-6 \approx 2$ .

Hab. in endoperidio Mycenastri Corii, prope Kecskemét

Hungariæ.

146. Phoma Geasteris Hollós, Annal. Mus. Nat. Hungar. V (1907) 6457 p. 280. — Pyenidiis gregariis, immersis, lenticularibus, ochraceis,

poro pertusis, 50-100  $\mu$  diam., contextu parenchymatico; sporulis ellipsoideis, continuis, eguttulatis biguttulatisve, hyalinis, 5-6  $\approx$  2-2,5.

Hab. in strato interno exoperidii Geasteris fornicati pr. Kecskemét Hungariæ.

147. Phoma Calvatiæ Hollós, Annal. Mus. Nat. Hungar. V (1907) 6458
p. 280. — Pycnidiis sparsis lenticularibus, fuscis, poro pertusis, 100-120 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, continuis, eguttulatis, hyalinis, 6-8 × 2-2,5.

Hab. in endoperidio Calvatiæ candidæ prope Fehértemplom Hungariæ.

148. Phoma Geasteropsidis Hollós, Annal. Mus. Nat. Hungar. V 6459 (1907) p. 280. — Pycnidiis gregariis, lenticularibus, ochraceis, poro pertusis, 100-160 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, eguttulatis v. obscure biguttulatis, continuis, hyalinis, 6-7 × 2-3.

Hab. in stratu interno exoperidii Geasteropsidis Conrathi prope Modderfontein Africæ meridionalis.

149. Phoma Bovistæ Hollós, Annal. Mus. Nat. Hungar. V (1907) 6460 p. 279. — Pycnidiis sparsis, lenticularibus, ochraceis, poro pertusis, 80-100  $\mu$ . diam.; contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, continuis, obscure biguttulatis, hyalinis,  $4-5 \approx 1,5-2$ .

Hab. in exoperidio Bovistæ plumbeæ prope Sókamara Hungariæ.

150. Phoma? dubia (Linds.) Sacc. et Trott., Phymaiopsis dubia Linds. 6461 Lich. and Fungi Otago, p. 442, (1866) t. XXX, f. 36-42. — Pycnidis gregariis, punctiformibus, nigris, innato-emergentibus, globulosis; sporulis oblongo-teretiusculis, hyalinis, exiguis, 3-4 × 1,7; sporophoris bacillaribus fasciculatis paullo longioribus.

Hab. in apotheciis Usneæ barbatæ v. floridæ, Dunedin pr. Otago in Nova Zelandia.

151. Phoma ornithophila B. R. S. in Saccardo, Not. Myc. VI; Ann. 6462 Myc. III (1905) p. 509. — Pycnidiis subsparsis, sæpeque dense approximatis, subcuticularibus, prominulis. demum superficialibus, sphæroideo-depressis, atris, nitidulis, 240-320 μ. diam., breve obtuse papillatis, pertusis; contextu minute parenchymatico fuligineo; sporulis ellipsoideis, 9-12 × 4-5, hyalinis, 2-guttulatis; sporophoris bacillaribus, simplicibus v. furcatis, 12-15 × 2-3.

Hab. in caule pennarum subputrescentium Phasiani, et Hisyll. fung. XXII (III-1913) 57

rundinis, La Panne pr. Furnes Belgii (Maria Rousseau). — Socius sæpe adest *Pteromyces ambiguus*.

152. Phoma? leptospora Speg., Fungi Chilenses (1910) p. 145, cum 6463 icon. — Pycnidiis sparsis v. laxe gregariis, innato-erumpentibus, ex hemisphærico lenticularibus, 50-120 μ. diam., atris, coriaceis, late ostiolato-perforatis; sporulis hyalinis, cylindraceis, utrinque plus minusve rotundatis, 10-20 × 2-3, sæpe minute uniguttulatis.

Hab. frequens in foliis coriaceis subputrescentibus et in ramulis siccis plurimarum plantarum, Talcahuano, Concepcion, Valparaiso, Chile Amer. austr. — Sec. Auct. hæ distinguuntur formæ: fm. Boldoæ fragrantis: pycnidiis 50-80  $\mu$ . diam., sporulis cylindraceis utrinque acutiusculis, biguttulatis,  $18-20 \approx 2,5$ . — fm. Lardizabalæ biternatæ: pycnidiis 90-110  $\mu$ . diam., sporulis cylindraceis, quandoque apice acutatiusculis, raro guttulatis,  $18-20 \approx 2,75-3$ . — fm. Lomatiæ obliquæ: pycnidiis 100-120  $\mu$ . diam., sporulis cylindraceis, utrinque rotundatis,  $10-18 \approx 2$ . — fm. Puyæ chilensis: pycnidiis 100  $\mu$ . diam., sporulis cylindraceis v. leniter fusoideis, rectis, apice obtusis v. subtruncatis, eguttulatis,  $10-14 \approx 2-2,25$ .

153. Phoma radicalis Sacc. et Trav. — Syll. XX, pag. 358. — Ita 6464 vocetur *Phoma radicicola* Maubl. (1905) — Syll. XVIII, p. 250 — non Mac Alp. (1902). — Syll. XVIII, p. 247.

PHOMOPSIS Sacc. — Syll. III p. 614, XVIII p. 264 (\*).

1. Phomopsis viridarii (Sacc.) Trav. et Spessa — Syll. III, p. 89, sub 6465

Phoma — fm. nervicola Trav. et Spessa, Bol. Soc. Brot. XXV

(1910) p. 178. — A typo differt ob pycnidia secus feliorum nervos disposita et ob sporophora sporulas subæquantia vel paullo longiora.

Hab. in foliis Magnoliæ grandifloræ, in Horto botanico

Coimbra (A. Moller).

2. Phomopsis Coronillæ (West.) Bubák, Bull. Herb. Boiss. (1906) 6466 pag. 473, tab. XV, fig. 4. — Ita vocanda est *Phoma Coronillæ* West. — Syll. III, p. 67. — Nascitur quoque in Montenegro.

3. Phomopsis Psoraleæ Bubák, Bull. Herb. Boiss. 2 sér., VI (1906) 6467 pag. 473. — Pycnidiis in maculis nigrescentibus insidentibus v.

<sup>(\*)</sup> De speciebus hujus generis ofr. Diedicke in Ann. Mycol. IX (1911), Buback Pilzfl. Hung. Budapest 1906, p. 28, et Traverso in Fl. it. crypt. Pyren. p. 215-284 passim, sub *Diaporthe*.

sparsis et tunc areola nigrescente circumdatis, depresse lenticularibus usque ad 180  $\mu$ . latis, subepidermicis demum apice late conoideo erumpentibus, contextu firmo, flavo-brunneo supra obscuriore; sporulis fusoideis, ex fusoideo ovoideis, 5,5-9  $\times$  2-3, utrinque plus vel minus angustatis, hyalinis, spurie uniseptatis, supra fortiter cuneatis, 20-25  $\times$  1-1,5, hyalinis, sporophoris filiformibus usque ad 12  $\mu$ . long., rectis, confertis.

Hab. in caulibus siccis Psoraleæ bituminosæ pr. Ulcinj Montenegro.

4. Phomopsis epicarpa Sacc., Ann. Mycol. VII (1909) pag. 433. — 6468 Pycnidiis sparse gregariis, subcutaneo-erumpentibus, prominulis, nigris, globoso-depressis, 250-300 μ. diam., intus cavis, pallidis, ostiolo irregulari; sporophoris filiformibus, subinde flexuosis, hyalinis, fasciculatis, 15-17 × 1,5; sporulis fusoideis, utrinque acutiusculis, rectis curvulisve, hyalinis, 8-9 × 2,5.

Hab. in leguminibus languidis Robiniæ Pseudacaciæ pr. Parisios (P. Hariot). — Ph. Pseudacaciæ affinis sed loco et habitu diversa.

5. Phomopsis Cydoniæ (Schulz.) Sacc. et Trav. — Syll. XX, p. 362 6469 Næmaspora Cydoniæ Schulz. v. Mügg. in Verh. zool. bot. Ges. Wien, 1871, p. 1237, t. 13, f. 15. — Pycnidiis subcutaneis, pustulatim elevatis, globoso-conicis, intus pallide griseis, ½ mm. d.; sporulis numerosis, tereti-oblongis, hyalinis, 7-9 μ. longis; sporophoris filiformibus, stipatis, sporulâ multo longioribus, demum hamatis, hyalinis.

Hab. in ramis corticatis Cydoniæ vulgaris in Hungaria. — Pycnidium Diaporthes speciei.

6. Phomopsis Francoæ Speg., Fungi Chilenses (1910) pag. 147. — 6470 Maculis tenuibus obscuris indefinitis subellipticis, 3-10 mm. diam.; pycnidiis ligno immersis, globosis, 75-100 μ. diam., late ostiolatoperforatis; sporulis subcylindraceis, medio sæpe lenissime coarctatulis utrinque rotundatis 6-7 × 1,75, non v. grosse biguttulatis, hyalinis.

Hab. in ramulis junioribus emortuis siccis Francoæ sonchifoliæ in collibus Bahia de Corral Chile, Amer. austr.

7. Phomopsis coriariicola Speg., Fungi Chilenses (1910) p. 146. — 6471 Pycnidiis ligno cortice tecto infossis, subglobosis, 50-60 μ. diam., atris, membranaceis, bene ostiolatis; sporulis cylindraceis, rectis v. curvulis, utrinque subtruncato-rotundatis, 3-4 × 1,5, minute uniguttulatis, hyalinis.

Hab. in ramis siccis Coriariæ ruscifoliæ, Cerro Caracol de Concepcion Chile Amer. austr.

8. Phomopsis Tommaseana L. Gaja, Flora micol. prov. Padova, (1911) 6472 p. 22 (sunto litogr.). — Pycnidiis solitariis, raro gregariis, pseudoparenchymatice contextis, atris, irregulariter subglobosis, fuscis, erumpentibus, 300-350 circiter μ. diam.; sporulis hyalinis, fuscideis, 2-guttulatis, 6-7 × 2¹/₂-3; sporophoris cylindraceis, hyalinis, hamatis, 18-20 μ. longis.

Hab. in ramis corticatis Calycanthi in viridario Convictus

Universitariorum Patavii Ital. bor. (L. GAJA).

9. Phomopsis Martyniæ Speg., Myc. Argent. V, pag. 347, in An. 6478 Mus. Buenos Aires, XX (1910). — Macula stromatica nigra, irregulari, late effusa, nuda, interdum 5-15 mm. diam.; pycnidiis ligno superficie atrato nidulantibus, tenui-membranaceis, 90-100 μ. diam., non v. vix prominulis, contextu indistincto; sporulis ellipsoideis, grosse biguttulatis, 5-6 ≈ 2-3, rectis curvulisve, sporophoris simplicibus, fasciculatis, 15-20 ≈ 1-1,5 suffultis.

Hab. ad caules aridos putresque Martyniæ luteæ in pratis circa La Plata Argentina.

10. Phomopsis Almeidæ Trav. et Spessa, Bol. Soc. Brot. XXV (1910) 6474 p. 177, t. II, f. 10. — Pycnidiis sparsis vel hinc inde subgregariis, cortice nidulantibus et vix erumpentibus, depressis,  $^3/_4$ -1  $\times$   $^1/_3$ - $^1/_2$  mm., atris; contextu indistincte pseudoparenchymatico, fuligineo-atro; sporulis oblongo-ovoideis vel fusiformibus, interdum minute biguttulatis, 7-9  $\times$  2-3; sporophoris cylindraceis 10-15  $\times$  1- $1^4/_2$  suffultis.

Hab. in caulibus emortuis Solani nigri in horto botanico conimbricensi Lusit. (A. Moller). — A Phoma pampeana differt matrice aliena, pycnidiis minoribus et sporulis typice minusculis et biguttulatis; a Ph. solanophila pycnidiis multo majoribus et sporophoris distinctis.

11. Phomopsis majuscula Sacc. Not. Myc. VII, Ann. Myc. IV (1906) 6475 p. 275. — Pycnidiis laxe gregariis, sphæroideo-oblongis, depressis, sordide nigricantibus, 600-700 μ. long., supra veluti e matrice atrata formatis et irregulariter dehiscentibus, deorsum contextu grosse parenchymatico fuligineo præditis, peridermio paullulum pustulato et demum lacerato tectis; sporulis oblongo-ellipsoideis, utrinque leniter tenuatis, sæpius inæquilateris, 10-12 × 3,5-4, sed perfecte maturis usque ad 12-16 × 5, intus granulosis, hyalinis;

sporophoris bacillaribus,  $6-8 \approx 2,5-3$ , non secedentibus, hyalinis, e strato proligero fuligineo oriundis.

Hab. in ramis emortuis Tecomæ radicantis, Lyndonville N. Y. (C. E. FAIRMAN). — A Ph. Tecomæ differt pycnidis et sporulis subduplo majoribus, sporophoris brevioribus etc.

12. Phomopsis Rojana L. Gaja, Flora micol. prov. Padova, (1911) p. 22 6476 (sunto litogr.). — Pycnidiis sæpe proximatis, contextu pseudoparenchymatico nigrescente præditis, irregulariter subglobosis, per ostiola breviter papillata erumpentibus, 300-400 μ. diam.; sporulis hyalinis, continuis, subfusoideis, 2-guttulatis, 8-10 × 3-3½; sporophoris cylindraceis, hyalinis, 18-20 μ. longis.

Hab. in ramis corticatis Diospyrl Kaki in viridario Convictus Universitariorum, Patavii Ital. bor. (L. Gaja). — Differt a Phoma Diospyri, substrato, longitudine sporularum et sporophororum, denique habitatione in ramo corticato.

13. Phomopsis Stewartii Peck, New York St. Mus. Bull. n. 139 6477 (1909) p. 27. — Peritheciis gregariis, maculas griseas seu brunneas vulgo occupantibus, tenuibus, subcutaneis, dein erumpentibus, depressis, minutis, 1/3-1/2 mm. latis, nigris; sporulis dimorphis, primum filiformibus, curvatis, flexuosis v. hamatis, 16-25 × 1-1,5, deinceps oblongis v. subfusiformibus, hyalinis, vulgo binucleatis, 8-12 × 2; sporophoris gracilibus, sporulas æquantibus vel brevioribus.

Hab. in ramis Cosmi bipinnati, Geneva Ontario co. America boreali.

14. Phomopsis oblita Sacc. Ann. Mycol. VIII p. 383 (1910). — Pycni- 6478 diis dense et late gregariis subcutaneo-erumpentibus, inæqualiter globulosis, 0,5 mm. diam., nigris, obtusis non papillatis, intus e griseo nigricantibus, farctis; sporulis fusoideo-oblongis, 2-guttatis, 8-9 × 2-3, interdum inæquilateris, hyalinis; sporophoris e strato viridulo oriundis bacillaribus, 11-12 × 1-1,5 hyalinis; sæpe curvulis.

Hab. in caulibus Artemisiæ Absinthii morientibus, prope Graal Germaniæ (H. Sydow). — Probabiliter est pycnidium Diaporthes oblitæ.

15. Phomopsis missouriensis Bubák, Journ. of Mycol. XII (1906) 6479 p. 53. — Pycnidiis sparsis subepidermicis, collo brevi prominentibus, epidermide nigricante tectis, primum lenticularibus dein depresse conoideis usque ad <sup>1</sup>/<sub>4</sub> mm. latis, parietibus crassis usque ad 60 μ., contextu parenchymatico intus flavo-brunneo extus obscure

brunneo; sporulis variabilibus aliis fusoideis 9-13  $\approx$  2,5-3,5, utrinque acutis, sæpe bipartitis, aliis cylindraceis, rectis vel curvulis, usque ad  $20 \approx 1,5-2$ ; sporophoris filiformibus, usque ad  $18 \approx 1,5$ , basi subfasciculatis, hyalinis.

Hab. in caulibus emortuis Asclepiadis verticillatæ, Emma Salina Co. Missouri Amer. bor. (C. H. Demetrio). — Status pycnidicus verisimiliter Diaporthe Asclepiadis Ell. et Ev.

16. Phomopsis Osyridis Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 6480 p. 473. — Pycnidiis sæpe in stromate nigro depresso efformatis, nigris, ex ellipsoideo elongatis, 150-250 μ. cr., contextu firmo grosse parenchymatico, supra brunneo-nigro infra flavo-brunneo; sporulis fusoideis, utrinque angustatis, acutatis, 6-9 × 2-2,5, hyalinis; sporophoris subphialiformibus, apice fortiter acutatis, basi confertis, 10-15 × 1-1,5.

Hab. in ramulis siccis Osyridis albæ prope Ulcinj Montenegro.

17. Phomopsis Fagopyri Trav. et Spessa, Bolet. Soc. Brot. XXV (1910) 6481 p. 177, t. II, f. 13. — Pycnidiis dense sparsis, epidermide initio tectis dein apice crasso erumpentibus, depresso-oblongis,  $1-1^1/_4 \approx 1^1/_3 - 1^1/_2$  mm., atris, interdum plus minusve bilocularibus; sporulis oblongis, utrinque obtusiusculis,  $6-9 \approx 2-2^1/_2$ , sæpe biguttulatis; sporophoris cylindraceo-bacillaribus, 10-15  $\mu$ . longis.

Hab. in caulibus emortuis Fagopyri esculenti in horto botanico conimbricensi Lusit. (A. Moller). — Ob pycnidia interdum bilocularia et valde depressa ad Placosphæriam vergit.

18. Phomopsis Kochiana L. Gaja, Flora micol. prov. Padova, (1911) p. 6482 23 (sunto litogr.). — Pycnidiis immersis, prominulis, epidermide atrata per aream dealbatam sparsis, dein erumpentibus, irregulariter subglobosis, pseudoparenchymatice contextis, atris, 300-400  $\mu$ . circiter diam.; sporulis hyalinis, fusoideis, 2-guttulatis,  $6-7.5^1/2 \approx 2-2.5$ ; sporophoris cylindraceis, hyalinis, rectis, tandem hamatis, 20-26  $\approx 1-2$ .

Hab. in ramulis et in caulibus emortuis Kochiæ trichophyllæ, in viridario Convictus Universitariorum, Patavii, Ital. bor. (L. GAJA).

19. Phomopsis urticicola Trav. et Spessa, Bol. Soc. Brot. XXV (1910) 6488 pag. 178, t. II, f. 14. — Pycnidiis dense sparsis, erumpentibus, valde depressis, 200-250 μ. latis, ostiolo incrassato et vix perforato, atris, contextu minute pseudoparenchymatico, fuligineo-atro; sporulis ellipsoideo-fusoideis, biguttulatis, 7-8<sup>1</sup>/<sub>2</sub> × 2<sup>1</sup>/<sub>2</sub>-3; sporopho-

ris cylindraceo-bacillaribus, demum hamatis et facillime secedentibus, hyalinis,  $25-30 \times 1-1^{1}/_{2}$ .

Hab. in caulibus exaridis Urticæ niveæ, prope S. Bento

Coimbra Lusit. ubi legit A. Moller majo 1903.

20. Phomopsis populina Voglino, Ann. R. Acc. Agric. Torino v. LI 6484 (1908) Extract. p. 19, Nota 1. — Pycnidiis gregariis, prominentibus, nigris, primo lenticularibus, peridermio tectis, dein conicis, erumpentibus, 200-400 × 200-250, mm. excipulo superne spisso et in collum oblongato, medio excavato cylindriformi; sporulis primo filiformibus, facile secedentibus, 24-40 × 1-1,5, inde ellipsoideis, acutis, biguttulatis, 8 × 3-3,5; sporophoris bacillaribus 16-24 × 3.

Hab. in ramis corticatis Populi canadensis, Pancalieri Pedem. Ital. bor.

21. Phomopsis conorum (Sacc.) Diedicke in Ann. Mycol. (1911) p. 22; 6485 — Syll. III, p. 150 — Allesch. Sphærops. I, p. 195, sub Phoma — var. naviculispora Trav., in Bull. n. 8 Société Flore Valdôtaine, pag. 27 extr. (1912). — A typo differt sporulis plerumque eximie inæquilateris, navicularibus, rarissime rectis; pycnidiis subastomis, excipulo crustaceo-carbonaceo, deorsum sæpe tenui vel subnullo, sparsis vel confluentibus, interdum nucleo subdimidiato, 150-250 μ. latis; sporophoris rectis 12-15 ≈ 2; sporulis minutis obscureque 2-guttulatis, 8¹/₂-11 ≈ 2¹/₂-3, utrinque tenuatis.

Hab. in squamis conorum dejectorum Abietis excelsæ su-

pra Valpelline, Valle d'Aosta, Ital. bor.

22. Phomopsis phenicicola Trav. et Spessa. Bol. Soc. Brot. XXV 6486 (1910) p. 177, t. II, f. 12. — Pycnidiis gregariis, per epidermidem erumpentibus, atris, oblongo-depressis, 250-280 × 140-180, contextu spurie pseudoparenchymatico, fuligineo-atro, circa ostiolum incrassato; sporulis fusoideis vel oblongis, utrinque parum attenuatis, sepe intus minute granulosis et plerumque spurie biguttulatis, rectis vel leniter curvulis, 8-12 × 2-2<sup>1</sup>/<sub>2</sub>; sporophoris longe bacillaribus sporula paullo longioribus.

Hab. in rhachidibus siccis Phænicis dactyliferæ in horto

botanico conimbricensi Lusitaniæ (A. MOLLER).

23. Phomopsis Ranojevicii Bubák, Ann. Mycol. VIII (1910) p. 383. 6487 — Pycnidiis irregulariter sparsis, globoso-applanatis, lenticularibus v. irregularibus, subepidermicis, dein papillato-erumpentibus, nigris, 40-120 μ. diam., contextu pseudoparenchymatico brunneo-olivaceo; sporulis e cylindraceo fusoideis, 7,5-10 × 2-2,5, utrinque

angustatis, hyalinis, indistincte biguttulatis, contentu distincte biloculari; sporophoris elongato-cylindraceis, apice fortiter angustatis,  $10-19~\mu$ . long , hyalinis.

Hab. in bracteis emortuis Allii asperi prope Pirot, Serbia.
24. Phomopsis Fourcroyæ Saccardo, Not. Myc. VI, Ann. Myc. III 6488 (1905) pag. 512. — Pycnidiis gregariis, amphigenis, globoso-depressis, subcutaneis, vix erumpentibus, 150-160 μ. diam.; ostiolo obsoleto depresso, irregulariter dehiscenti, epidermide punctiformisubclavata alba tecto; sporulis tereti-oblongis, sæpius curvulis, utrinque obtusulis, 6-8 × 3,5, 2-guttulatis, hyalinis; sporophoris acicularibus, sursum tenuatis, 14 × 2, demum secedentibus curvulis.

Hab. in foliis emortuis Fourcroyæ giganteæ in horto botanico Cagliari Sardiniæ (X. Belli).

25. Phomopsis Aloës-percrassæ Trinchieri, Rend. R. Ac. Sc. Napoli 6489 (1909) fasc. 8-12, Extr. p. 2. — Pycnidiis copiosis, longitudinaliter et regulariter seriatis, epidermide atrata tectis, dein vix erumpentibus, valde depressis, imperfecte pertusis, nigricantibus, 122-220, μ. diam., 49-110 μ. altis, excipulo parenchymatico, intus flavofusco donatis; sporophoris manifestis, filiformibus, quandoque deformatis, eximie hamatis, hyalinis, 22-26,5 μ. longis, 2 μ. crassis; sporulis fusoideo-oblongis, distincte 2-guttatis, continuis, hyalinis, 7-9,5 × 2.

Hab. in scapo emortuo Aloës percrassæ, in Horto botan. neapolitano Ital. austr. (Trinchieri). — A Phoma Debeauxiana Sacc. macularum constanti defectu, pycnidiorum forma et dispositione, sporularum magnitudine et matrice (in scapo) facile dignoscenda; et a Ph. aloicola etiam macularum defectu, pycnidiorum dispositione, forma, magnitudine et contextu, sporophori forma et longitudine sporularumque magnitudine certe diversa species.

26. Phomopsis Actinidiæ (P. Henn.) Diedicke in litt. — Ita vocetur 6490 Cytospora Actinidiæ P. Henn. — Syll. XVI, p. 902 — Cytospora Actinidiæ Syd. genuina est species Cytosporæ et nomen sydowianum servari debet.

Teste cl. Bubák, in Bull. Herb. Boiss. sér. 2, VI (1906) p. 473 et in Növényt. Közlem. 1907, Heft. 4, pag. 28-29 extr. species sequentes ad gen. Phomopsis spectant: Phoma Coronillæ West. — Syll. III, p. 67 — Phoma picea (Pers.) Sacc. — Syll. III, p. 140 — Phoma Cichoriacearum Sacc. — Syll. III, p. 124 — Phoma Lactucæ Sacc. — Syll. III, p. 124 — Phoma Spartii Sacs. — Syll. III, p. 67 — Phoma demissa Sacc. — Syll. III, p. 118 — Phoma

Asparagi Sacc. — Syll. III, p. 162. — Quæ species ll. cc. Phomopsis nomine donantur.

PLECTOPHOMA v. Höhnel, Fragm. z. Myk. IV in Sitzb. k. Ak. d. Wiss. Wien, Bd. CXVI, Abt. I (1907) p. 639 (Etym. plectos connexus et Phoma). — Stromata subepidermica, intus pluri-pycnidica. Pycnidia immersa intus plus v. minus hyphis fertilibus irregulariter radiantibus inter se subreticulatis farcta. Hyphæ ex sporophoris brevibus papillas sporigeras minutissimas ferentibus constantes. Sporulæ 1-cellulares, minutæ, hyalinæ.

1. Plectophoma Umbelliferarum v. Höhnel, Fragm. z. Myk., Sitzb. k. 6491 Ak. d. Wiss. Wien, Bd. CXVI, Abt. I (1907) p. 640. — Stromatibus plus minusve distinctis, subepidermicis, 1-6 mm. long., 0,5-1 mm. lat., mollibus, ex hyphis pallide olivaceis, septatis, 6-10 μ. cr. efformatis; pycnidiis immersis, rotundato-ovoideis, 160-170 μ. diam., ostiolatis; parietibus mollibus, brunneo-olivaceis, ex hyphis flocoosis efformatis; nucleo ex hyphis breviter ramosis, 4-5 μ. cr., arcte anastomosantibus et fertilibus aspectu parenchymatico constituto; sporulis hyalinis, cylindraceis, plerumque rectis, 4-5 × 1-1,5.

Hab. in caulibus siccis Fœniculi dulcis pr. Bastia, Corsica.
— Ad hoc genus pertinent etiam Sphæropsis Anethi P. et Phyllosticta bacteriosperma Pass., teste v. Höhnel.

MACROPLODIELLA Speg., Anal. Mus. Nac. Buenos Aires v. XVII (1908) p. 134, cum icon. (Etym. a *Macroplodia*, cujus analogum genus). — Pycnidia subepidermica, lenticularia, ostiolata, subcarbonacea; sporulæ maximæ, hyalinæ, continuæ.

1. Macroplodiella maticola Speg., l. c. p. 134, cum icon. — Pycnidiis 6492 cortice insidentibus, epidermide velatis eaque arcte adnatis, nigris, lenticularibus, 150 μ. diam., hyphis ramulosis tenuibus 2,5-3 μ. cr. septulatis intricatis olivaceis pellucidis vestitis, ostiolo impresso perforatis, contextu indistincto, atro; sporophoris majusculis, 15 × 5, hyalinis, sublageniformibus; sporulis subcylindraceis superne rectis v. oblique rotundatis, postice subcuneatis 45-60 × 10-15, crassiuscule tunicatis, levibus, intus dense granuloso-nubilosis, semper hyalinis.

Hab. ad ramos dejectos putrescentes Ilicis paraguariensis in silvis circa San Pedro Reip. Argentinæ.

MACROPHOMA Sacc. — Syll. X p. 189, XI p. 495, XIV p. 889, XVI p. 879, XVIII p. 267.

1. Macrophoma Ranunculi Alm. et Cam., Revista Agronom. V (1907) 6493 p 53, tab. I, fig. 5-6. — Pycnidiis primo tectis, demum erumpentibus, sparsis, subglobosis, atro-brunneis, 150-200 μ. diam.; sporulis sæpe longe ellipsoideis, interdum cymbiformibus v. raro unilateraliter gibbulosis, utrinque rotundatis, hyalinis, plasmate granuloso farctis, 1-4-nucleatis, 17-22 × 5-6; sporophoris non visis.

Hab. in caulibus aridis Ranunculi acris, in horto bot.

Coimbra Lusitaniæ (A. Moller).

2. Macrophoma chilicola Speg, Fungi Chilenses (1910) p. 147, cum 6494 icon. - Maculis nullis; pycnidiis parenchymate innatis, epidermide tectis, sæpius hypophyllis, e lenticulari subglobosis, 100-120 μ. diam., sparsis, atris, coriaceis, ostiolo minuto perforatis; sporulis obovatis non v. plus minusve navicularibus, apice altero obtuso. altero subapiculato, 20-26 × 10-15, primo hyalinis, tunica mucosa tenui obvolutis, dein chlorinis nudis.

Hab. in foliis dejectis subputrescentibus Lardizabalæ biternatæ in silvaticis Cerro Caracol de Concepcion Chile, Amer. austr.

3. Macrophoma nuptialis Bubák, Bull. Herb. Boiss. 2 ser. VI (1906) 6495 p. 474, tab. 14, fig. 9-10. — Maculis flavo-brunneis, magnis, limitatis; pycnidiis amphigenis, sparsis, globoso-depressis, 180-250 u. cr., nigris, primum epidermide tectis, demum collo firmo prominentibus, contextu grosse parenchymatico, pallide castaneo-brunneo; sporulis fusoideis v. elongatis, 18-24 × 5,5-6,5, infra obtusoangustatis, supra angustato-acutatis, unilocularibus, hyalinis vel chlorinis, contentu granuloso; sporophoris 15 u. long., apice angustatis, hyalinis.

Hab. in foliis vivis senioribus Myrti communis, prope Ulcinj Montenegro

4. Macrophoma Camarana Trav. et Spessa, Bol. Soc. Brot. XXV 6496 (1910) p. 174, t. III, f. 15. — Pycnidiis gregariis peridermium pustulatim sublevantibus et demum lacerantibus sed extus non prominentibus, subglobosis, 1/4 mm. diam., atris, contextu denso. indistincte pseudoparenchymatico, fuligineo-nigro; sporulis oblongo-fusoideis, rectis, utrinque acutiusculis, granuloso-farctis, 20-23 × 51/,-7; sporophoris cylindraceo-bacillaribus, hyalinis, 7-10 ×  $1^{1}/_{2}-2.$ 

Hab. in ramis Rosæ damascenæ cerca de S. Bento, Coim-

bra (A. Moller). — Species claro prof. Souza da Camara dicata. Affinis M. conicæ Pass. in Rubo, a qua differt præcipue pycnidiis gregariis et ostiolo conico distincto omnino carentibus.

5. Macrophoma tiliacea Peck, Bull. Torr. Bot. Club XXXIV (1907) 6497 p. 348. — Pycnidiis sparsis, in cortice immersis, epidermide ostiolis minute perforata tectis, depressis v. late conoideis, ostiolo circulari præditis, nigris; sporulis oblongis, hyalinis, utrinque rotundatis, 18-30 × 8-9.

Hab. in ramis emortuis Tiliæ americanæ, Oberlin Ohio Amer. bor. (F. O. Grover).

6. Macrophoma paulistana Speg., Fungi Paulist., Rev. Mus. La Plata, 6498 t. XV, (1908) p. 34. — Maculis nullis; pycnidiis lenticularibus 80-100 μ. diam., glabris, epidermide velatis vix prominulis ostiolo mediocri perforatis, membranaceo-coriacellis, contextu fusco-fuligineo dense minuteque parenchymatico; sporulis rectis, rarissime medio leniter subattenuatis, utrinque rotundatis, 24-26 × 6, primo 2-4-guttulatis, dein eguttulatis, hyalinis.

Hab. ad ramos vivos et languidos Melastomaceæ cujusdam, Cambucy Ipiranga, Brasilia (USTERI).

7. Macrophoma duvauicola (Speg.) Sacc. et Trott., Phoma duvauicola 6499 Speg., Myc. Argent. V, p. 342, in An. Mus. Buenos Aires XX (1910). — Maculis nullis; pycnidiis amphigenis, sparsis, parenchymate foliorum innatis, subastomis, coriaceis, atris, 100-150 μ. diam., subhemisphæricis, contextu indistincto; sporulis cylindraceo-subnavicularibus, eguttulatis, 15-20 × 4-5, rectis curvulisve, hyalinis.

Hab. ad folia dejecta fuscescentia Duvauæ longifoliæ pr. La Plata, Argentina.

8. Macrophoma acinicola (Speg.) Sacc. et Trott., Phoma acinicola 6500 Speg., Myc. Argent. V, p. 341, in An. Mus. Buenos Aires XX (1910). — Maculis nullis; pycnidiis innatis, lenticularibus, minutis, confertiusculis sed discretis, 110-120 μ. diam., fusco-atris, contextu molliusculo indistincto; sporulis subclavato-navicularibus 20-22 × 5-6, basi sæpius paulo acutioribus, nubiloso-farctis, hyalinis; sporophoris linearibus, 5-8 × 1, e fronte piriformibus, 5-8 × 3-4, hyalinis.

Hab. in baccis are scentibus Vitis viniferæ in hortis La Plata, Argentina. — A Macr. acinorum sporophoris brevioribus, a Macr. flaccida sporulis obtusioribus distincta.

9. Macrophoma Mygindæ Spegazz., Myc. Argent. V, p. 349, in An. 6501

Mus. Buenos Aires, XX (1910). — Maculis nullis; pycnidiis parenchymate innatis, per epidermidem erumpentibus, carbonaceis. atris, 100-120 u. diam., ostiolo minuto rotundo pertusis; contextu indistincto; sporulis subellipsoideis, nubiloso-guttulatis, utrinque rotundatis. 14-18 × 7-9, hyalinis.

Hab ad folia, demum fusco cinerescentia Rhacomæ (Mygindæ) distichæ in dumetosis secus Carrenleofú, Patagonia.

10. Macrophoma Theæ Speschnew, Pilzparasiten d. Teestrauches 6502 (1907) p. 17, tab. III, fig. 5-7. — Pycnidiis hypophyllis, sparsis, contextu parenchymatico, fuligineis, primo epidermide tectis, dein erumpentibus et fere subliberis, 60-140 µ. cr.; sporulis oblongoellipsoideis, continuis, hyalinis, intus granulosis, 16-18 × 3; sporophoris filiformibus, brevibus, indistinctis.

Hab. in foliis vivis Theæ sinensis, Tschakwa prope Batum Caucasia. — M. Mantegazzianæ affinis a qua differt pycnidiis sporulisque minoribus et præcipue sporophoris fere inconspicuis.

11. Macrophoma scaphidiospora Da Camara, Mycetæ aliquot Theo- 6503 bromæ Cacao in Sancti Thomensis Insula, Lisboa (1910) p. 5, t. V. fig. 3-5. — Pycnidiis suborbicularibus, depresso-globosis elongatisve (piriformibus), sæpe solitariis, interdum gregariis, atris, primo immersis, dein ostiolo pertuso prominulis, 200-260 × 150-200; sporulis navicularibus, hyalinis, continuis, deorsum rotundatis v. raro truncatis, sursum attenuatis, utrinque minime guttulatis. 15-18 × 5-6; basidiis cylindraceis, hyalinis, rectis v. vix curvulis, minutissimis, demum obsoletis, 5-6 µ. long.

Hab, in fructibus Theobromæ Cacao in ins. St. Thomé (J. J. DE ALMEIDA et CANNAS MENDES).

12. Macrophoma Coronillæ (Desm.?) v. Höhnel in Neger, Ber. Deut. Bot. 6504 Gesellsch. XXVIII (1910) pag. 478, M. Coronillæ-Emeri Neger, l. c. XXVI A (1908) p. 747, Sphæria Coronillæ Desm.? - Pycnidiis variabilibus, in superficie vel in pariete interna positis, 50 u. diam. v. usque ad 120-160 u.; sporulis variabilibus, subovoideis, subfusoideis vel ampulliformibus, 13-45 × 5-12, plerumque hyalinis v. raro brunneolis, continuis, rarissime 1-3-septatis.

Hab. in gallis Asphondiliæ in Coronilla Emero. Dalmatia, Littorale etc. — Est certe diversa a Phomopsi Coronillæ (West) Bub. sed incerti generis.

13. Macrophoma Phyllocacti Speg., Myc. Argent. V, p. 349, in An. 6505 Mus. Buenos Aires, XX (1910). — Maculis nullis; pycnidiis gregariis, eximie circinantibus, subepidermicis, atris, minutis, coria-

cellis, 150-200  $\mu$ . diam., obsolete ostiolatis, lenticulari-depressis; contextu indistincto; sporulis sub-ellipticis, minute guttulatis, utrinque obtusulis, 16-18  $\approx$  8-9, hyalinis, interdum subinæguilateris.

Hab. ad cladodia languida vel arida demum subcinerescentia Phyllocacti sp. in hortis La Plata, Argentina.

14. Macrophoma Heraclei Da Camara, Bol. Soc. Broteriana XXV 6506 (1910) Extr. p. 14. — Pycnidiis solitariis, epidermide diu velatis, ostiolo impresso pertusis, globoso-depressis, atris, 125-200 × 70-120; sporulis oblongo-ellipsoideis, rectis v. leniter curvulis, utrinque plus minusve rotundatis, hyalinis, continuis, intus granulosis, 15-18 × 5-6.

Hab. in ramulis Heraclei Sphondylii prope Coimbra, cerca de S. Bento Lusitaniæ (A. Moller).

15. Macrophoma heterospora Trav. et Migliardi, Fl. micol. Venezia 6507 pag. 12, tav. 2, fig. 4 (1911). — Pycnidiis minutis, hinc inde gregariis, subglobosis, prominulis, erumpentibus, brunneolis, 150-180 μ. d., late pertusis, excipulo distincte pseudoparenchymatico, tenuiusculo, fulvo-umbrino; sporulis plerumque fusiformibus vel ovato-oblongis, hyalinis, intus minute granulosis, 20-28 × 8-10, aliis dimidio minoribus sæpe commixtis; sporophoris copiosis, cylindraceis, hyalinis, 15-22 × 3-3<sup>1</sup>/<sub>o</sub>.

Hab. in caulibus emortuis Calystegiæ sæpium, Lido, Venetiis, Ital. bor. — Species, ut videtur, bene distincta, sed ulterius inquirenda. Ad subgen. Cylindrophoma spectat.

16. Macrophoma Vincetoxici Trav. et Spessa, Bol. Soc. Brot. XXV 6508 (1910) p. 175, t. III, f. 22. — Pycnidiis densiuscule sparsis, epidermide nigrificata velatis, demum vix erumpentibus, globulosis, 200-240 μ. diam, fuligineo-atris, poro circulari latiusculo pertusis, excipulo distincte pseudoparenchymatico, fuligineo; sporulis oblongo-ovoideis vel fusiformibus, utrinque attenuatis, intus minute granulosis, eguttulatis, rectis vel inæquilateris, 16-22 × 5¹/₂-7; sporophoris breviusculis, 8-10 μ. longis, cylindraceo-bacillaribus, hyalinis.

Hab. in sarmentis Vincetoxici officinalis in horto botanico conimbricensi Lusitaniæ (A. MOLLER).

17. Macrophoma Phoradendri F. A. Wolf, in Mycologia (1910) n. 5, 6509 p. 242, tab. XXXII. — Pycnidiis in foliis matricis initio flavescentibus, demum atro-brunneis amphigenis, sparsis, globosis, brunneis, primo innatis, dein ostiolo obtuso erumpentibus, 180-210 μ. diam.; contextu parenchymatico; sporulis oblongis v. ellipsoideis, utrin-

que rotundatis, plasmate granuloso farctis, continuis, hyalinis, 24-34 × 15-18; sporophoris brevissimis, papilliformibus.

Hab in foliis vivis Phoradendri flavescentis, Texas Amer. bor.

18. Macrophoma Visci Aderh. in Arb. Biol. Anstalt f. Land- u. Forst-6510 wirtschaft IV (1905) p. 462, fig. 4. — Pycnidiis numerosis, dense gregariis, globosis, atris, immersis, erumpentibus, 0,3-0,4 mm. d.; sporophoris nullis; sporulis continuis, hyalinis, oblongo-ellipticis v. oblongo-ovatis, medio plerumque leniter contractis, granulatis, 43-66 × 18-21, in cirros longos tenues albidos expulsis.

Hab. in ramis dejectis Visci albi, Proskau Silesiæ.

19. Macrophoma Pituranthi Sacc. et Trott. in Trott. Mycet. Tri- 6511 polit. pugill., Ann. Mycol, X (1912) p. 513. — Pycnidiis gregariis copiosis punctiformibus nigris, innato-erumpentibus, primo tectis dein epidermide operculatim rupta prominentibus, 200-250 μ. diam., contextu tenui parenchymatico brunneolo; sporulis inæqualiter cylindraceis, curvulis, utrinque obtusis v. subattenuatis longitudine variabilibus: majusculis et magis copiosis 19-23 × 5-6, minoribus 13-16 × 4,5-5, irregulariter guttulatis

Hab. in caulibus Pituranthi tortuosi in rupestribus Gargaresc prope Tripoli Africæ bor. (A. TROTTER). Ad sect. Cylindrophomam spectat. M. striolæ Sacc. affinis, sed diversa.

20 Macrophoma ulcinjensis Bubák, Bull. Herb. Boiss. 2 sér. VI 6512 (1906) p. 475. — Maculis magnis flavo-alutaceis v. griseis; pycnidiis sparsis v. hinc inde gregariis, globosis v. parum depressis, 150-170 μ. latis, sordide flavo-brunneis, distincte perforatis, crasse tunicatis, subepidermicis, dein breviter papilliformi-prominentibus, contextu e flavo flavo-brunneo, supra obscuriori; sporulis elongatis, 20-28,5 × 6,5-7, infra subapiculatis supra rotundatis, hyalinis, unilocularibus, contextu granuloso; sporophoris, papilliformibus.

Hab. in foliis vivis senioribus Hederæ Helicis prope Ulcinj Montenegro.

21. Macrophoma Cucurbitacearum Trav. et Migliardi, Fl. micol. Ve- 6518 nezia, p. 12, tav. 2 fig. 6 (1911). — Pycnidiis sub epidermide nidulantibus eamque sublevantibus, demum erumpentibus, atro-brunneis, globoso-papillatis, 180-200 μ. diam., ostiolo pro ratione angusto præditis; sporulis oblongo-ellipsoideis vel ovatis, utrinque obtusis, granuloso-farctis, hyalinis, 13-18 × 6-8; sporophoris nullis visis.

Hab. in caulibus emortuis Cucurbitæ cultæ in hortis insulæ «Murano» prope Venetias, Ital. bor.

22. Macrophoma hypomutilospora d'Alm. et da Cam., Revista Agron. IV 6514 (1906) p. 138, tab. III, fig. 3-4; Bol. Soc. Brot. XXV (1908-1909) Extr. p. 40. — Pycnidiis sparsis, raro gregariis, subglobosis, circ. 300 μ. diam.; leniter depressis, 300-350 × 200-250 primo tectis, demum erumpentibus, aterrimis; sporulis hyalinis, ovoideis v. ellipsoideis, sursum rotundatis deorsum truncatis, granuloso-farctis, 17-22,5 × 7-10; sporophoris cylindraceis rectis, raro curvulis sporulas plus minus æquantibus.

Hab. in ramulis Helianthi tuberosi in horto bot. Coimbra Lusitania (A. MOLLER).

23. Macrophoma Senecionis d'Alm. et da Cam., Bol. Soc. Brot. XXIV 6515 (1908-1909) Extr. p. 42. — Pycnidiis subglobosis, sparsis, immersis, epidermide tectis, contextu parenchymatico, atro-fuligineo, ostiolo pertusis, 150-200 μ. diam.; sporulis oblongo-ellipsoideis, hyalinis, rectis, utrinque rotundatis, nubilosis, 16-24 × 6-7,5.

Hab. in ramis exsiccatis Senecionis scandentis, prope Coimbra et Cerca de S. Bento, Lusitania (A. Moller).

24. Macrophoma Guevinæ Speg. Fungi Chilenses (1910) p. 148. — 6516 Pycnidiis sparsis v. laxissime gregariis, globosis, minutis, 100-120 p. diam., ligno infossis, epidermide circa ostiolum vix nigrificata tectis, subcarbonceis; sporulis e cylindraceo ellipsoideis utrinque obtusis, rotundatis 30 × 12-14, inferne sæpe obsoletissime subapiculatis, hyalinis.

Hab. in petiolis siccis subputrescentibus Guevinæ Avellanæ in silvaticis Cerro Caracol de Concepcion Chile Amer. austr.

25. Macrophoma sycophila (Massee) Sacc. et D. Sacc. - Syll. XVIII 6517 pag. 273 - var. corticola Trav. et Migliardi, Fl. micol. Venezia, p. 12 (1911). — A typo differt quia corticola nec foliicola; differt etiam sporulis crassioribus, 15-17 × 5-6.

Hab. in ramis siccis Fici Caricæ in hortis «alla Giudecca», Venetiis, Ital. bor. — An species distincta?

26. Macrophoma Fici d'Alm. et da Cam., Rev. Agronom. IV (1906) 6518 pag. 61, tab. I, fig. 4-5; Bol. Soc. Brot. XXV (1908-1909), Extr. p. 39. — Pycnidiis sparsis, globoso-depressis, 250-350 μ. diam., contextu parenchymatico fuligineo; sporulis diversiformibus (ovoideis, ellipsoideis, ellipsoideo-ovoideis, conoideis v. piriformibus) utrinque rotundatis, hyalinis, granulosis, 22-28 × 10-12; sporophoris spora longioribus, hyalinis, claviformibus (demum evanidis?).

Hab. in ramis Fici macrophyllæ in horto bot. Coimbra Lusitaniæ (A. Moller).

27. Macrophoma fusispora Bubák, Beitr. Pilzfl. Ung. in Növénytani 6519 Közlemények (1907) Heft 4, Extr. pag. 29. — Maculis utrinque visibilibus 1-3 in quoque folio, irregulariter rotundatis v. elongatis, sinuosis, coriaceis, medio arescendo albidis, obscure marginatis, distincte limitatis; pycnidiis epiphyllis, in mesophyllo immersis, epidermide tectis, globosis, 120-160 μ. diam., nigris, contextu parenchymatico nigro-brunneo, ostiolo brevi ebscuriori prominentibus; sporulis fusoideis, 18-26 × 3,5-6, apice sæpe longe acutatis et tunc 20-35 μ., infra subinflatis, hyalino-nubilosis; sporophoris hyalinis, cylindraceis.

Hab. in foliis vivis Quercus confertæ in M. Allion prope Orsova Hungariæ.

28. Macrophoma Polygonati Ferr. Malpiglia XX (1906) p. 147. — 6520 Maculis sparsis v. confluentibus, ovato-irregularibus, late et intense fusco-marginatis; pycnidiis prominulis, majusculis, 200-250 μ. cr., globosis, brunneis, perforatis; sporulis numerosis, hyalinis, ovoideis v. subcylindraceis, apice rotundatis, intus granulosis, 12-17 ≈ 6-7.5.

Hab. in foliis Polygonati officinalis, Alba Pedemontii Italia. bor.

29. Macrophoma Pinsaponis Neger, Naturw. Ztschr. f. Land. u. Forst-6521 wirtsch. V (1907) p. 402. — Pycnidiis sæpius hypophyllis, raro epiphyllis, in binas series secus nervum dispositis, innatis, astomis, udis subdiaphanis, siccis fere opacis, vertice rimose dehiscentibus, 300 μ. diam.; sporulis elliptico-fusoideis, utrinque subrotundatis v. apiculatis, hyalinis, 20-25 × 6-10, maturis eguttulatis.

Hab. in acubus Abietis Pinsaponis in Hispania merid. — Macrophomæ excelsæ et M. Abietis offinis videtur.

30. Macrophoma Abietis-pectinatæ Bubák, Ann. Mycol. IV (1906) 6522 p. 112. — Pycnidiis immersis, globoso-depressis, nigris, collo breviter prominenti erumpentibus, usque ad ½ mm. cr., contextu brunneo apice obscuriore; sporulis fusoideis raro ovoideis, 22-31 × 9-13, utrinque plus v. minus rotundatis, contentu hyalino nubiloso; sporophoris cylindraceis sporulas æquantibus v. longioribus 3-5 μ. cr., hyalinis.

Hab. in foliis Abietis pectinatæ prope Tabor Bohemia.

— Macr. excelsæ proxima sed sporulis majoribus præcipue diversa.

31. Macrophoma Abietis Mangin et Hariot, Bull. Soc. myc. France, 6528

t. XXIII (1907) fasc. 1, Extr. p. 9, fig. 7. — Pycnidiis amphigenis, præcipue epiphyllis, 200-300  $\mu$ . circ. cr., sparsis v. subgregariis, atris, primo epidermide tectis, dein erumpentibus, rotundato-ellipticis, pertusis; sporophoris brevibus, simplicibus; sporulis ovoideis v. plus minus fusiformibus, eguttulatis, hyalinis, 20-23  $\approx$  8.

Hab. in foliis Abietis pectinatæ in silva La Savine dicta, in regione jurassensi Galliæ. — M. excelsæ (Karst.) affinis, sporulis vero eguttulatis et conceptaculis numquam fusco-furfuraceis distincta; sed verisimillime non diversa a præcedente.

32. Macrophoma Livistonæ d'Alm. et da Cam., Rev. Agron. V (1907) 6524 p. 20, tab. I, fig. 1-2. — Pycnidiis epiphyllis, sparsis, subglobosis, atris, primo tectis, demum erumpentibus, 150-200 μ. diam.; sporulis subcylindraceis, hyalinis, plerumque medio depressis, utrinque rotundatis, granuloso-farctis, 25-27,5 × 12,5-15; sporophoris non visis.

Hab. in foliis siccis Livistonæ sinensis, prope Povoa de Lanhoso, Lusitania (BALTH. DE MELLO).

33. Macrophoma Miltoniæ Da Camara, Bol. Soc. Broteriana XXV 6525 (1910) p. 14. — Maculis subnullis; pycnidiis amphigenis, præcipue epiphyllis, valde numerosis, subglobosis, primo immersis demum ostiolo vix papillato erumpentibus, 200-250 × 150-200; sporulis ellipsoideis, ovalibus, amygdaliformibus v. reniformibus, sæpe utrinque rotundatis, plerumque deorsum attenuatis, eguttulatis, nubiloso-farctis, hyalinis, 22-28 × 13-16; sporophoris longitudine sporularum v. paullo longioribus, subcylindraceis, hyalinis.

Hab. in foliis Miltoniæ candidæ, in horto botanico Coimbra Lusitaniæ (A. Moller).

34. Macrophoma Bakeri Syd., Hedwigia XLIX (1909) pag. 82. — 6526 Pycnidiis amphigenis, maculis nullis vel obsolete decoloratis insidentibus, sparsis vel hinc inde aggregatis, diu epidermide tectis, dein erumpentibus et subliberis, aterrimis, globosis, 150-200 μ. diam., poro ca. 20-25 μ. lato pertusis; sporulis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis vel subinde uno fine leniter attenuatis, hyalinis, continuis, intus minute guttulatis, 20-32 × 10-18; sporophoris hyalinis, usque ad 30 μ. longis.

Hab. in foliis vivis Cordylines spec., Para Brasiliæ (C. F. BAKER).

35. Macrophoma Agapanthi Trav. et Spessa, Bol. Soc. Broter. XXV 6527 (1910) p. 174, t. III, f. 16. — Pycnidiis gregariis, erumpentibus, globosis, 180-230 μ. diam., atris, poro circulari pertusis, excipulo Syll. fung. XXII (III-1913)

minute pseudoparenchymatico, fuligineo; sporulis ovoideo-fusoideis, utrinque obtusatis, rectis vel sæpius inæquilateris, 25-28 × 5-6, intus minute granulosis; sporophoris indistinctis.

Hab. in scapis siccis Agapanthi umbellati in horto botanico conimbricensi Lusitaniæ (A. Moller).

36. Macrophoma Dyckiæ Trinchieri, Rend. R. Acc. Sc. Napoli (1909) 6528 fasc. 8-12, Extr. p. 3. — Pycnidiis gregariis, immersis, denique suberumpentibus, globoso-depressis, pertusis, atris, 172-208 μ. diam., 147-178 μ. altis; excipulo parenchymatico, dilute castaneo præditis; sporophoris nullis visis; sporulis valde copiosis, polymorphis, ovatis, cylindraceis, utrinque rotundatis, subclavatis, rarissime globosis, plasmate granuloso non raro minute guttulato farctis, continuis, hyalinis, 7-19,5 × 4,5-7.

Hab. in scapis jam emortuis Dyckiæ sulphureæ cultæ in horto botanico neapolitano Ital. austr. (Trinchieri).

37. Macrophoma Spegazzinii Sacc. et Trott., Macrophoma Dyvkiæ 6529 Speg., Myc. Argent. V, p. 349, in An. Mus. Buenos Aires XX (1910). — Maculis nullis; pycnidiis matrici infossis, subcoriaceis, atris, minute ostiolatis, subglobosis,  $100\text{-}120~\mu$ . diam., contextu indistincto olivaceo; sporulis cylindraceo-ellipsoideis, eguttulatis, mediocribus,  $25\text{-}30 \approx 14\text{-}15$ ; sporophoris subduplo longioribus suffultis, hyalinis.

Hab. ad folia arida putrescentia Dyckiæ montevidensis in hortis La Plata, Argentina. — An Sphæropsis immatura?

38. Macrophoma Hedychii Mariani in Atti Soc. ital. Sc. nat. L (1911) 6530 p. 169, fig. 4. — Pyonidiis dense sparsis, ellipsoideis, epidermide tectis, prominulis, vix erumpentibus, nigris, 270-300 × 180-200; sporulis ovato-cylindraceis vel oblongo-fusoideis vel interdum subreniformibus, hyalinis, 16-19 × 5,5-6, endoplasmate granuloso farctis; sporophoris rectis, crassiusculis, 5-6 μ. longis.

Hab. in petiolis foliisque Hedychii coronarii in Horto botanico conimbricensi, Lusitania (A. Moller). — A Macrophoma Musæ (Sacc. Syll. III, 163, sub Phoma) facile dignoscitur sporulis dimidio angustioribus.

39. Macrophoma? americana Speg., Myc. Argent. V, p. 348, in An. 6531 Mus. Buenos Aires, XX (1910). — Maculis ellipticis parvulis, ferrugineis, callosis, 1-3 mm. long. 1-1,5 mm. lat.; pycnidiis numerosis, dense constipatis, non v. vix prominulis, latissime ostiolato-perforatis, atris, 75-80 \(\rho\). diam., tenuiter membranaceis, globosis, contextu indistincto, atro; sporulis maximis, ovoideo-elongatis v. sub-

ovoideis, superne crassiuscule tunicatis, hyalinis, 45-60  $\approx 10\text{--}14,$  intus sæpe nubilosis.

Hab. ad calamos languidos Scirpi americani in uliginosis circa Mendoza, Argentina. — Stirps singularis, Uredinaceas in mentem revocans; forte non de pycnidiis genuinis sed de loculis agitur.

40. Macrophoma sorghicola Speg., Myc. Argent. V, p. 350, in An. 6532 Mus. Buenos Aires, XX (1910). — Maculis nullis v. obsoletis; pycnidiis dense gregariis, seriatis, erumpentibus, ovoideis, submembranaceis, nigris, glabris, plus minusve papillato-ostiolatis, 100–150 μ. alt, 70-100 μ. cr., contextu grosse celluloso, pellucide fusco; sporulis subfusoideis, sæpe leniter inæquilateris, hyalinis, sursum obtusulis, deorsum acutulis, 18-20 × 6-7; sporophoris vix conoideis, 10-15 × 2, hyalinis.

Hab. in culmis languidis v. emortuis Sorghi vulgaris in hortis La Plata, Argentina.

41. Macrophoma melanostigma (Lév.) Sacc. Note myc. VIII, Ann. Myc. 6533 v. IV (1906) p. 491, tab. X, fig. 5, Sphæria melanostigma Lév. in Demid. Voyage dans la Russie mérid. II, pag. 105, t. V, f. 6 (1842). — Pycnidiis epiphyllis sed utrinque visibilibus, gregariis, punctiformibus, globoso-depressis, 100-130 μ. diam., nigris, in pag. sup. leviter et obtuse prominulis, non papillatis; contextu membranaceo, parenchymatico, vinoso-fuligineo, cellulis subglobosis 8-12 μ. diam.: sporulis tereti-clavatis, utrinque præcipue apice rotundatis, rectis v. leviter curvis, subsessilibus, 28-30 × 5-6, strato mucoso hyalino cinctis, intus minute granulosis, hyalinis.

Hab. in foliis emortuis dealbatis Graminaceæ minoris non determinandæ pr. Sou-Dagh Tauriæ. — Cl. Léveillé, l. c. describit ascos breves apice valde inflatos, sporas 4 vel 5 globosas, hyalinas continentes. Organa talia pluribus observationibus non vidi: revera dubius haesi an sporulæ supra a me descriptæ potius ascos immaturos sisterent, sed et quia facile secedant et quia muco cingantur et plasmate granuloso æquali farctæ sint, organa omnino matura videntur. Nihilominus species non omnino certa manet.

42. Macrophoma guttifera (Otth) v. Höhn., Sitzb. k. Ak. d. Wiss. 6584 Wien CXV, Abt. I (1906) p. 26. — Teste v. Höhnel ita vocanda est Sphæropsis guttifera Otth — Syll. XI, p. 512.

LONCHOSPERMELLA Spegazz., Fungi Paulist., Rev. Mus. La Plata t. XV, p. 37 (1908) (Etym. lonchos lancea et sperma spora). — Pycnidia subglobosa antice umbonato-ostiolata, anhista, postice sessilia, parenchymatica; sporulæ lanceolatæ in sporophoris subglobosis quaternatim acrogenæ continuæ v. diblastæ, hyalinæ. — Genus Hyalodermatum statum stylosporicum sistit.

Lochnospermella tetraspora Spegazz. l. c. — Pycnidiis atris, 100 6585 × 80, sparsis, in subiculo Meliolæ parasitantibus; sporulis antice acutissimis, 30 × 7-8, erectis, hyalinis in sporophoris e globoso subobovatis, 5-6 μ. diam., concoloribus acrogene insistitiis, sæpius diblastis.

Hab. ad folia coriacea plantæ ignotæ cujusdam, subiculo Meliolæ laxæ insidens, Ipiranga Moça Brasilia (USTERI).

SCLEROPHOMA v. Höhn. Fragm. z. Mykol. VIII p. 78 (1909) (Etym. scleros durus et Phoma). — Pycnidia erumpentia v. superficialia, primum sclerotioidea, nigra, astoma, nucleum minute cellularem, plectenchymaticum continentia. Sporulæ hyalinæ, elongatæ uniloculares, ex histolysi mucosa contextus parenchymatis nuclearis orientia. — Ad hoc genus cl. auctor refert: Sclerophoma pityophila (Corda) v. Höhn. — Phoma pityophila (Corda) Sacc. Syll. Fung. III p. 101; Sclerophoma pitya (Thüm.) v. Höhn. — Phoma pityella Sacc. Syll. X p. 164; Sclerophoma Piceæ (Fiedl.) v. Höhn. — Phoma Piceæ (Fiedl.) Sacc. Syll. III p. 101. — Sclerophoma Pini (Desm.) v. Höhn. — Phoma Pini (Desm.) Sacc. Syll. III. p. 191.

Sclerophoma endogenospora Laubert, Gartenflora, LX (Mart. 1911) 6536 p. 134, Phevodiscula endogenospora Laub., l. c. (Feb. 1911) p. 78.
 — Pycnidiis erumpentibus sat minutis, <sup>1</sup>/<sub>4</sub> mm. diam., interdum usque 1 mm. diam., depresse globosis, extus nigris, intus e massa sporularum albidis, hypostromate nigro præditis, diu clausis, demum irregulariter dehiscentibus; sporulis in massam firmam dein submucosam congestis, ovoideis v. oblongo-ovoideis, hyalinis, continuis, 4-12 × 2-5, ex histolysi mucosa nuclei endogenetice oriundis.

Hab. in cortice trunci emortui Piri Mali pr. Berolinum Germaniæ.

SELENOPHOMA Maire, Bull. Soc. Bot. Fr. LIII (1906) p. CLXXXVII (Etym. a selene). — Conceptacula immersa erumpentia v. subsuperficialia, ostiolo punctiformi plus minusve papillato, membranacea, nigra; sporulæ quasi Vermiculariæ, curvatæ et utrinque acu-

tæ, muticæ, hyalinæ; sporophora brevissima, simplicia. — Est Vermicularia conceptaculis calvis, seu Phoma sporulis bicornibus. A. Sclerotiopside conceptaculis minimis, membranaceis ostiolatis erumpentibus differt.

1. Selenophoma Catananches Maire, l. c. p. CLXXXIVII — Con- 6537 ceptaculis minutis, 60-130 μ. diam.; sporulis levibus 11-13 × 4.

Hab. in caulibus aridis Catananches caeruleæ, Tlemcen Africa bor. — Socia adest Pleospora herbarum.

RHIZOSPHÆRA Mangin et Hariot, Bull Soc. Myc. de France t. XXIII (1907), fasc. I p. 56. (Etym. rhiza radix et sphæra). — Pycnidia superficialia, subglobosa, atra, contextu celluloso, apice perforata, deorsum in stipitem filamentosum parenchymate foliorum immersum, basi in filamenta mycelii ramosa desinentem, attenuata; sporophora brevia, simplicia, monospora; sporulae hyalinæ, non septatæ, ovoideæ, leves.

1. Rhizosphæra Abietis Mang. et Hariot Bull. Soc. Myc. de France, 6538 t. XXIII (1907) fasc. I. p. 56, fig. 1-6. — Pyenidiis minutis, 120 × 90, longitudinaliter secus nervum dense seriatis, contextu e cellulis coriacellis angulosis efformato; stipite inferne in tuberculum sclerotii instar subglobosum, subhyalinum, 50 p. circ. crassum, desinente; hyphis mycelii hyalinis crasse tunicatis; sporophoris acuminatis; sporulis numerosis, 16-20 \* 8.

Hab. in foliis subvivis Abietis pectinatae in silva La Savine dicta, in regione jurassica, et prope Ambert Arvernie, Gallia. - Teste cl. Maublanc in Bull. Soc. Mycol. Fr. XXIII (1907) p. 171 ab hac specie non differret Coniothyrium Pini Corda, seu Leptothyrium Pini (Corda) Sacc. Syll. III., p. 627, quod tamen sub. nov. gen. militare debet titulo Rhizosphæræ Pini (Corda) Maubl. l. c.

APOSPHÆRIA Berk. - Syll. III p. 169, X p. 205, XI p. 497, XIV p. 893, XVI p. 884, XVIII p. 275.

1. Aposphæria majuscula Sacc. et Roum. in Rev. Mycol. VI. (1884) 6539 p. 39 sine diagnosi, t. 44 f. 34. - Pycnidiis gregariis, superficialibus globoso-conoideis breviter papillatis, glabris 0,5 mm. diam., nigris, subcoriaceis; sporulis breviter tereti-oblongis, hyalinis, utringue rotundatis, obtusis,  $6 \times 2.5-3$ .

Hab. in ramis decorticatis emortuis putrescentibus Vitis viniferæ in Arduennis (LIBERT).

2. Aposphæria minuta (Schulz. v. Mügg.) Sacc. et Trott. Mazzantia 6540 minuta Schulz v. Mügg. in Verh. zool.-bot. Ges. Wien (1871) t. XIII p. 29. — Pycnidiis in ligno albo-maculato superficialibus, sparsis v. gregariis subglobosis, obscure papillatis, poro latiusculo pertusis, glabris, nigris, 180-225 μ. diam.; sporulis perexiguis oblongis, hyalinis, 3,5 μ. longis.

Hab. in ramis decorticatis emortuis et putrescentibus Cydoniæ vulgaris in Hungaria.

- 3. Aposphæria Berlesii Sacc. et Trott. Ita dicatur Aposph. minuta 6541 Berl. (1889) Syll. X p. 207 et cfr. Syll. XIX p. 85 non Schulz. v. Mügg. supra memorata.
- 4. Aposphæria denudata (Schulz) Sacc. et. Trav. Syll. XIX p. 84, 6542 Næmaspora denudata Schulz. v. Mügg. in Verh. zool.-bot. Ges. Wien (1871) p. 1236, t. 13, f. 14. Pycnidiis gregariis, peridermio jam delapso, omnino superficialibus, globosis, epapillatis, nigris, glabris, poro latiusculo pertusis, 250-400 μ. diam., intus griseis; sporulis ovato-oblongis, hyalinis, minutis, 5 μ. long.; sporophoris bacillaribus stipatis sporulâ multo longioribus.

Hab. in ramulis emortuis jamdudum decorticatis Cydoniæ vulgaris in Hungaria.

- 5. Aposphæria microcarpa (Schulz.) Sacc. et Trav. Syll. XX p. 356 6548 (Phoma) Clisosporium microcarpum Schulz. v. Mügg. in Verh. zool.-bot. Ges. Wien (1871) p. 1252, t. 13, p. 32. Pycnidiis gregariis mox cortice jam dejecto superficialibus, globosis, minutis, levibus, epapillatis, nigris, ½ ½ mm. diam., subcorneis; sporulis innumeris, perexiguis, ellipsoideis, 2,6 μ. long. hyalinis, pycnidii nucleum album formantibus.
- Hab. in ramis decorticatis Cydoniæ vulgaris in Hungaria.
  6. Aposphæria major Syd. Am. Mycol V (1907) p. 340 et in Barthol. 6544 Fg. Columb. n. 2304. Pycnidiis sparsis, solitariis, superficialibus, primo globosis, tandem plus minus profunde collabascentibus, ostiolo brevissimo, carbonaceis, atris, ¹/₂—³/₄ mm. diam.; sporulis numerosissimis, oblongis, utrinque obtusis, continuis, hyalinis, eguttulatis, 7-10 ≈ 3-4, rectis; sporophoris non visis.

Hab. in caulibus Rubi parviflori, Big. Cottonwood Canyon Salt Lake Co., Utah America bor. (A. O. GARRETT).

7. Aposphæria Rhois Sacc. et Trott., Ann. Myc. X. (1912), p. 512. 6545 — Pycnidiis minutissimis <sup>1</sup>/<sub>10</sub> mm. circ. cr., subglobosis, nigris, glabris, contextu minute parenchymatico, brunneo; sporulis breviter bacillaribus, rectis v. curvulis utrinque obtusulis hyalinis,

 $3-3,5 \times 1-1,5$ , eguttulatis; sporophoris distinctis parallele fasciculatis, acicularibus, hyalinis,  $7-10 \times 15$ .

Hab. in ramulis decorticatis emortuis sed adhuc stantibus Rhois Oxyacanthe in M. Mergheb prope Homs Tripolitania, Africa bor. — A congeneribus exiguitate sporularum, sporophoris distinctis, matrice etc. videtur diversa. In gen. Rhus viget tantum Ap. fibriseda (C. et Ellis) Sacc. imperfecte descripta sed certe diversa.

8. Aposphæria Canavaliæ Massee, Kew Bull. n. 7 (1906) p. 258. — 6546 Maculis arescendo-nigricantibus, irregularibus, indeterminatis; pycnidiis superficialibus, atris, glabris, ostiolo conico pertusis, contextu parenchymatico, brunneo donatis; sporulis magnis, hyalinis, utrinque obtusis, rotundatis, 24-30 × 8-10, sporophoris cylindraceis 13-15 × 4, hyalinis, insidentibus.

Hab. in leguminibus siccis Canavaliæ sp. Fiji Polynesiæ (Yeoward). — Apos. macrosporæ Sacc. affinis.

9. Aposphæria caulina Karst., Act. Soc. pro Faun. et Fl. fenn. 6547 XXVII, IV (1905) p. 15. — Pycnidiis sparsis, superficialibus, rotundatis, v. elongatis, vulgo inæqualibus, astomis, atratis, minutis; sporulis elongatis, continuis, hyalinis, circiter 4 × 1.

Hab. in caulibus siccis Cerefolii silvestris prope Kuopio Fennia (HENDUNEN).

10. Aposphæria conica Sacc. Fungi ital. fig. 1444 (sine diagnosi). — 6548 Pycnidiis in ligno supeficie denigrato laxe gregariis, superficialibus altiuscule globoso-conicis, minutis, nigris, levibus, subcarbonaceis, vertice pertusis; sporulis ellipsoideis v. oblongo-ellipsoideis, perexiguis, rectis, 2,5-3 ≈ 1,7, hyalinis; sporophoris subnullis.

Hab. in ligno putri Quercus pedunculatæ in silva Montello Ital. bor. sept. 1876.

11. Aposphæria Henryana Trav. in Bull. n. 8 (1912) Societé Flore 6549 Valdôtaine, pag. 26 extr. — Pycnidiis dense sparsis vel hinc inde subgregariis confluentibusque, ligno denudato vel cortice duriore insidentibus, atris, opacis, globoso-depressis, 200-250 μ. diam., ostiolo papillulato, poro circulari angusto pertuso præditis, senescendo quandoque collabescentibus, excipulo indistincte pseudo-parenchymatico, castaneo-brunneo; sporulis minutis, bacillaribus, rectis, utrinque rotundato-subtruncatis, grosse biguttulatis, hyalinis, coacervatis vero pallide viridi-lutescentibus, 4-5 × 1 ½-2; sporophoris distinctis nullis visis.

Hab. in ramis siccis semi-decorticatis Salicis albæ, Valpelline,

Valle d'Aosta, Ital. bor. alt. 950 m. - Cum speciebus in Salice inventis minute comparata, sed nullo modo convenit. Ab A Salicum Sacc. differt pycnidiis majoribus et sporulis crassioribus. A. pezizoidea Ell. et Ev. pycnidiis majoribus gaudet et typice valde collapsis. Species nostra A pulvisculce Sacc. magis accedit, a qua tamen differt pycnidiis majoribus, excipulo indistincte celluloso, sporulis coacervatis flavidulis et sporophoris, ut videtur, nullis distinctis.

12. Aposphæria rudis Karst., Acta Soc. pro Fann. et Fl. XXVII, 6550 VI (1905) p. 15. — Pycnidiis erumpentibus, dein superficialibus, cæspitose aggregatis, v. solitariis, difformibus, rotundatis, elongatis v. depressis, rostratis, atris, minutis, villo incano (an proprio) tectis: sporulis ovoideis, 1-2 guttulatis, hyalinis,  $3-4 \times 1-2$ .

Hab. in cortice interiore Abietis excelsæ, Villmanstrand Fenniæ (Lönnbohm).

13. Aposphæria Musarum Speg., Myc. Argent. V. p. 351 in An. 6551 Mus. Buenos-Aires, XX. (1910). — Pycnidiis superficialibus laxe gregariis, atris, subglobosis, glabris, matrice subiculo tenuissimo subcanescente glabrescenti hyalino velata insidentibus, exime acutiusculeque papillato-ostiolatis, 70-80 µ. diam., contextu minutissime parenchymatico subferrugineo; sporulis ellipsoideis, eguttulatis utringue subacutiusculis, 3-4 × 1-1,25, rects curvulisve, hyalinis.

Hab. ad folia dejecta putrida Musæ sapientum, prope Orán, Valta, Argentina.

14. Aposphæria anomala Rota-Rossi, I. Contr. Mic. Bergamo, Att. R. 6552 Ist. bot. Pavia ser. II v. IX (1907) p. 13. - Pycnidiis superficialibus, sparsis, globoso-depressis, atris, majusculis 1/2-2/3 mm. diam., interdum irregulariter bilocularibus, ostiolo distincte papillæformi præditis, intus contextu parenchymatico hyalino; sporulis copiosissimis, cylindraceo-ellipsoideis, eguttulatis, hyalinis, 4-6 \* 2-2,5; sporophoris cylindraceis, continuis, rectis, hyalinis,  $8-10 \approx 2-2.5$ .

Hab. in caule herbaceo emortuo humi dejecto, Palazzago Bergamo Ital. bor.

15. Aposphæria charticola Sacc. in Ann. Mycol. IX (1911) p. 251. — 6558 Pycnidiis globulosis, laxe gregariis, minutissimis, 160 µ. diam, superficialibus, vertice obtusis, subastomis, nigris, contextu minute celluloso, duriusculo, atro-fuligineo; sporulis pycnidium implentibus, ellipsoideis, basi acutiusculis, rectis, 5,5-7 × 3, hyalino-farctis, coacervatis dilutissime flaveolis.

Hab. in areis dealbatis chartae udae dejectae, Lyndoville N. Y. Amer. bor. (C. E. FAIRMAN).

- DENDROPHOMA Sacc. Syll. III. p. 178 X. p. 209, XI. p. 498, XIV.
  p. 895, XVI p. 886, XVIII p. 278.
- 1. Dendrophoma Guettardæ Patouill., Bull. Soc. Myc. Fr. XXII 6554 (1906) p. 59. Pycnidiis erumpentibus, globosis, atris, papilliformiostiolatis, 0,5-0,7 mm. diam.; sporophoris hyalinis, verticillatis, acutis, 6-10 × 2; sporulis, hyalinis allantoideis, rectis v. curvulis 3 × 1.

 $\it Hab.$  in fructibus emortuis  $\it Guettard\,\varpi\, specios\,\varpi$ , Makemo Polynesia.

Dendrophoma Inocarpi Patouill., Bull. Soc. Myc. Fr. XXII (1906) 6555
 p. 59. — Pycnidiis erumpentibus, atris, globosis, solitariis v. gregariis, c. 250, μ. diam., poro pertusis; sporophoris linearibus 12-15 ≈ 2, verticillatis; sporulis numerosissimis, hyalinis, fusoideo-ovoideis, 6 ≈ 2.

Hab. in fructibus Inocarpi edulis, Roruru Polynesia.

3. Dendrophoma vitigena Sacc. in Sydow. Mycol. germ. n. 517 et Ann. 6556 Mycol. IV (1906) p. 485 endr. D. pleurospora var. vitigena Sacc. in Syll. fung. III p. 178. — Sporophoris bacillaribus, apice obtusatis, septatis,  $25-30 \times 4~\mu$ . facile dilabentibus, non ramosis, sporulis acro-pleurogenis, inæqualiter ovoideis, minute biguttulatis,  $3-4 \times 1^{1}/_{\circ}-2$  hyalinis.

Hab. in ramis Vitis viniferæ et æstivalis in Germania, Gallia et Italia.

- Dendrophoma pruinosa (Fr.) Sacc., Syll. III. p. 179 var. Li-6557 gustri Strasser, Verh. k. k. zool. bot. Ges. Wien Bd. LX (1900)
   p. 311. A typo differt sporulis majoribus et matrice diversa.
   Hab. in ramis siccis Ligustri vulgaris, prope Ybbsitz
   Austria (P. Lambert). Socia adest Valsa Cypri Tul.
- 5. Dendrophoma ?armeriicola Speg. Myc. Arg. V p. 350 in An. 6558 Mus. Buenos-Aires, XX (1911). Pycnidiis, sparsis, epidermide tectis, leniter prominulis, subcarbonaceis, atris, 200-250 μ. diam., ostiolo vix papillato coronatis, contextu nigro, opaco; sporulis subcylindraceis utrinque subtruncatis, 3-5 × 1-1,5, rectis curvulisve (an catenulatis?) pleurogenis; sporophoris bacillaribus deorsum incrassatis, sæpe irregulariter denticulatis, 30-50 × 2-3.

Hab. ad scapos aridos Armeriæ chilensis ad ripas Rio Deseado, Patagonia.

6. Dendrophoma casuarinicola Speg. Myc. Arg. V p. 350, An. Mus. 6559 Buenos Aires XX (1910). — Pycnidiis ligno insidentibus, primo tectis dein denudato-superficialibus, subhemisphæricis, carbonaceis, 100-120 μ. dein, obsolete ostiolatis, nigris; contextu indistincto; sporulis ellipsoideis utrinque subrotundatis, rectis curvulisve, perexiguis, 2 × 1; sporophoris deorsum subincrassatis, parum supra basin trifidis v. medio furcatis,  $10 \times 1$ .

Hab. ed ramulos emortuos subputrescentes Casuarin æ stric. tæ, Claypole, prope Buenos Aires, Argentina.

7. Dendrophoma Gibberella Speg. Myc. Arg. V, p. 351 in An. Mus. 6560 Buneos Aires, XX (1910). — Pycnidiis cæspitosis erumpentibus, subglobosis, atrocyaneis, glabris, subcarnosulis, 150-200 μ. diam., eximie papillato-ostiolatis; contextu grosse perenchymatico ex atro cærulescente; sporulis ellipsoideis, nubilosis, utrinque obtusis. 20-25 × 12-14, non v. leniter inequilateralibus; sporophoris dense botryoso-ramulosis, ramulis brevibus, obtusulis, monosporis.

Hab. ad ramos subputrescentes Smilacis campestris prope Fraile Pintado, Salta, Argentina. — Sporophora circa ostiolun sterilia, indivisa. Verisimiliter pycnidium Gibberellæ cujusdam.

8. Dendrophoma vagans Syd. Hedwigia XLIX (1909) p. 82. — Pyc- 6561 nidiis epiphyllis, maculis, vagis indeterminatis pallidis insidentibus, æqualiter denseque distributis, subglobosis, 200-250 µ. diam.. atris, medio pertusis; sporulis ellipsoideis, utrinque rotundatis, hyalinis, continuis, intus nubiloso-farctis, 21-28 × 11-14; sporophoris filiformibus, dichotome ramosis,  $30-40 \approx 2$ .

Hab. in foliis Philodendri, Para, Brasilia (C. F. BAKER).

9. Dendrophoma oligoclada Sacc., Ann. Mycol. VI (1908) p. 565 Pyc. 6562 nidiis superficialibus, laxe gregariis, globulosis, atris, levibus, membranaceo-carbonaceis, 100 µ. diam., ostiolo impresso partusis; conidiis anguste cylindraceis, 4 × 0,8-1, utrinque rotundatis, leniter curvis, hyalinis; sporophoris, fasciculatis filiformibus, aliis simplicibus, aliis lateraliter parce ramulosis, 15-24 × 1-1,3, hyalinis.

Hab. in lignis dejectis putrescentibus, socio Coniothecio effuso, in silvis Lyndonville N. Y. Amer. bor. (FAIRMAN). - Ab affini Dendrophoma Pulvere-pyrio imprimis sporophoris parcissime ramulosis dignoscitur.

SCLEROTIOPSIS Speg. — Syll. III p. 184, X p. 213, XVI p. 887, XVIII 279.

1. Sclerotiopsis Rubi Massalongo, Nuove reclute fl. mic. veronese 6563

p. 8, Malpighia v. XX (1906). — Maculis foliolorum suborbicularibus avellaneis, dein expallentibus et zona fusca limitatis; pycnidiis nitidulis, castaneis, astomis lenticularibus, amphigenis, vulgo tamen epiphyllis, contextu obscure parenchymatico 0,5-1 mm. in diam.; basidiis densissimis filiformibus, ramosis 25-32 × 1-1,5; sporulis subnavicularibus (ad instar gen. Vermiculariæ), hyalinis utrinque acutis, 6-8 × 2.

Hab. Ad folia languentia Rubi cæsii prope Tregnago ex loco «Bosco Cagalati», Verona Ital. bor. — A Scl. Potentillæ Oudm., imprimis distat: pycnidis magis depresso-lenticularibus et colore castaneo, nec ex utraque superficie fol. prominentibus, insuper forma sporularum. Forte ad hoc genus etiam spectat Sporonema dubium C. Massal., observante auctore.

PLENQDOMUS Preuss — Syll. III p. 184, X p. 213, XIV p. 897,
 XVI p. 887, XVIII p. 280. (\*)

1. Plenodomus Eucalypti Alm. et. Cam., Revista Agronom. V (1907) 6564 p. 339, tab. I fig. 9-10; Bol. Soc. Brot. XXV (1908-1909), Extr. p. 43. — Pycnidiis primo tectis, dein erumpentibus, sparsis, sublenticularibus, basi subapplanatis, astomis, atris, 200-251 × 100-120; sporulis numerosissimis, oblongis, utrinque rotundatis biguttulatisque, continuis, subchlorinis, 5-6 × 2,5-3; sporophoris non visis.

Hab. in ramis Eucalypti globuli, prope Caldas da Rainha Lusitania (A. Moller).

MYCOGALA Rost. — Syll. III p. 185, XI p. 449, XIV p. 898, XVII p. 888, XVIII p. 280.

Mycogala macrospora Jaap, Fungi sel. exsicc. n. 346; Abh. Bot. 6565 Ver. Prov. Brandb. LII (1910) Extr. p. 17. — Pyenidiis superficialibus, flavo-grisis v. brunneo-grisis, globosis, 0,5-1 mm. diam., glabris, astomis, contextu parenchymatico flavido; sporulis sessilibus, globosis, 18-25 μ. diam., brunneolo-flavis, contextu dilute violaceo; membrana 3,4 μ. cr. spinulis 2,4 μ. long. hyalinis, obtusis, crebris donata.

Hab. in gramine cæso putrido, prope Bergedorf Schleswig-Holstein Germaniæ.

<sup>(\*)</sup> Cfr. Diedicke in Ann. Mycol. IX (1911) p. 137.

- **SPHÆRONÆMA** Fr. Syll. III p. 185, X p. 213, XI p. 499, XIV 899, XVI p. 888, XVIII p. 281.
- 1. Sphæronæma Pæoniæ v. Höhn. in Strasser, Verh. k. k. zool.-bot. 6566 Ges. Wien, LX (1910) p. 312 (nomen nudum).

Hab. in caulibus emortuis Pæoniæ, Sonntagberg Austriæ. — Cl. Pat. Strasser l. c. dicit V. Höhnelium speciem descripturum esse, sed in opusculis ejus hucusque diagnosis desideratur.

2. Sphæronæma Alyssi Hollós, Ann. Mus. Nat. Hungar. V (1907) 6567 p. 48. — Pycnidiis epidermide tectis, sparsis gregariisve, globosoconicis, ostiolo erumpente setis coronato, nigris 140-210 μ. diam., contextu parenchymatico; setis rigidis, fuscis, septatis, apice hyalinis, 80-250 × 4-5; sporulis cylindraceis, utrinque rotundatis, curvulis 4-5-guttulatis, nonnunquam obscure 3-4-septatis, hyalinis, 12-16 × 2.

Hab. in caulibus et foliis siccis Alyssi calycini et tortuosi prope Kecskemet Hungariæ.

3. Sphæronæma Violæ Hollós, Ann. Mus. Nat. Hung. (1908) VI p. 6568 530. — Pycnidiis sparsis, epidemide tectis, depresse globosis, brunneis, levibus, 500-600 μ. diam., contextu parenchymatico, rostellum 100 × 140; sporulis ellipsoideis, continuis, eguttulatis, hyalinis, 4-6 × 1-5-2.

Hab. in petiolis siccis Violæ odoratæ prope Kecskemet Hungariæ.

4. Sphæronæma talcahuanense Speg., Fungi Chilenses (1918) p. 148. 6569 — Pycnidiis superficialibus hinc inde cæspitosis globoso-depressis, piceo-subsuccineis, 100-150 μ. diam., ostiolo cylindraceo recto v. arcuatulo apice subpellucido armatis; sporophoris fasciculatis, ramosis, 10-15 × 1; sporulis cylindraceis utrinque subtruncatis, 2-3 × 1, hyalinis.

Hab. in schidiis truncorum Boldoæ fragrantis prope Talcahuano Chile, Amer. austr.

5. Sphæronæma album Petch, Ann. Roy. Bot. Gard. Peradeniya III 6570 Pt. I (1906) p. 5. — Pycnidiis semi-immersis, globosis, hyalinis, 140-260 μ. diam., in rostellum hyalinum, strictum productis; rostellis 250-800 μ. long. basi 80-160 μ. diam., apice 40-80 μ. diam., apice fimbriato; sporulis ovoideis, hyalinis, continuis, 7-11 × 4.

Hab. in fructibus dejectis Heve te brasiliensis, Ceylon.

Sphæronæma pomorum Shear, Bull. Torr. Bot. Cl. XXXIV (1907) 6571
 p. 307. — Pycnidiis gregariis v. sparsis, subsuperficialibus, submembranaceis, subglobosis, 125-175 μ. diam., ostiolo rostellato

75-150 p. long.; sporulis oblongo-cylindraceis v. sæpe ovoideis v. subellipisoideis, continuis, pallide viridi-flavidis, 6-7 × 3.

Hab. in Vaccinio macrocarpo prope Whitesville N. Jers. Amer. bor.

7. Sphæronæma spiniforme B. R. S. in Sacc. Not. Myc. VI Ser., v. III 6572 (1905) p. 509. — Pycnidiis verticaliter elongatis, spiniformibus, compressis, brunneis, glabris, molliusculis, siccitate rigido-fragilibus, sursum obtuse tenuatis, saepe albidis, 3-4 mm. alt. basi 1,5-2 mm. lat.; contextu partis inf. inflatæ minute globuloso-celluloso, superioris subprosenchymatico pallidiore et in fibras hyalinas flexuosas conglutinatas abeunte; sporulis cylindraceis rectis, sed sæpius curvulis, 4-5 × 1,5-2, hyalinis 30-45 µ. long.; sporophoris septatis, paniculato-ramosis.

Hab. ad caules emortuos Adenostylidis albifrontis, Paneveggio agri Tridentini (J. Bommer). — Ad genus Glutinium fece æquo jure trahi potest.

8. Sphæronæma hispidulum Corda, Syll. III p. 196 - f. Cirsii A. Poteb- 6578 nia, Ann. Mycol. VIII (1910) p. 71. — Pycnidiis 350-400 μ. diam., ampulliformibus, basi expansis, collo elongato, sparse piloso præditis; sporulis  $3,5-4 \approx 1,5$ .

Hab. in caulibus hibernantibus Cirsii sp. Charkow Rossia.

9. Sphæronæma curvirostre Saccardo, Not. Myc. VI, Ann. Myc. v. 6574 III (1905) p. 512, Sphæria curvirostra De Not. in herb. Inst. bot. rom. c. icone, nec Fries. — Pycnidiis late et laxe gregariis, subcutaneis, dein, epidermide secedente, expositis, e basi applanata globoso-conoideis, 300-400 µ. diam, membranaceo-coriacellis, nigris, in rostrum fere equilongum cuspidatum, sæpe curvulum, interdum rugulosum productis, glabris; sporulis e fronte oblongo-ellipsoideis, rectis,  $4 \times 2$ , e latere curvulis angustioribus,  $4 \times 1$ , biguttatis, hyalinis; sporophoris bacillaribus 5 × 0,5, hyalinis.

Hab, in caulibus emortuis herbarum majorum verisimiliter Compositæ v. Umbelliferæ cujusdam in M. Cenisio, Ital. bor. 1838 (Dom. LISA).

10. Sphæronæma Orobanches Hollós, Ann. Mus. Nat. Hung. VI (1908) 6575 p. 530. - Pycnidiis sparsis, globulosis, ostiolo erumpente, olivaceis, levibus, 180-200 µ. diam., contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, curvulis, continuis, 3-5guttulatis, hvalinis, 10-12 × 1,75-2, massa sporularum dilute ochracea.

Hab. in caulibus siccis Orobanches stigmatoidis prope Kecskemét Hungariæ.

11. Sphæronæma Veronicæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 6576 p. 341. — Pycnidiis gregariis, superficialibus, depresso-globosis, nigris, levibus, 240-310  $\mu$ . diam., contextu parenchymatico, rostello 140-210  $\approx$  90-105; sporulis oblongis, continuis, biguttulatis, hyalinis, 4-5  $\approx$  1-1,5; massa sporularum dilute ochracea.

Hab. in caulibus siccis decorticatis Veronicæ Chamædryos prope Kecskemét Hungariæ.

12. Sphæronæma herbarum Hollós, Ann. Mus. Nat. Hung. V (1907) 6577 p. 458. — Pycnidiis sparsis v. gregariis, initio epidermide tectis, demum superficialibus, nudis, nigris, oblongis, 400-700 μ. long., collo crasso, elongato, rectis v. curvulis, 100-180 × 70-100, apice aculeis rigidis, brunneis, septatis, 70-120 × 4-6 coronato, contextu parenchymatico; sporulis cylindraceis, utrinque rottundatis, rectis v. curvulis, 3-5-plerunque 4-guttulatis, hyalinis, 10-14 × 1,5-2, in massa pallide roseis.

Hab. in caulibus siccis specierum complurimarum, Kecskemét Hungariæ. — Probabiliter status pycnidicus Ophioboli.

13. Sphæronæma grandisporum v. Höhn., Stzb. K. Ak. Wiss. Wien, 6578 CXVIII Abt. I (1909) p. 402. — Pycnidiis sparsis, superficialibus, nigris, tenui-membranaceis, globosis, levibus, 200 μ. latis, collo brevi recto v. curvulo, obtuso, 100 × 45-50 præditis; contextu e cellulis polygoniis 5-6 μ. latis constituto; sporophoris filiformibus, sporulâ duplo v. triplo longioribus; sporulis hyalinis ellipsoideis v. elongato-cylindraceis utrinque rotundatis, tenuiter tunicatis, contentu granuloso, 12-25 × 13-14.

Hab. in ligno putri, Buitenzorg Java. Filamenta paraphysoidea inter sporulas occurrunt.

14. Sphæronæma Oryzæ I. Miyak, Pilze Reispfl. Japan (Journ 6579 College Agricul. Tokyo, II, (1910) p. 256, t. XIV, f. 43-44. — Pycnidiis in partibus foliorum decoloratis albidis insidentibus, longe rostratis, phialiformibus, 125  $\mu$ . diam., nigris, pseudoparenchymaticis; rostro 100  $\mu$ . circ. longo; sporulis ellipsoideis v. fusoideis 5-6  $\approx$  2,5-3, hyalinis.

Hab. in glumis et foliis Oryzæ sativæ, Shiga Japonia.

15. Sphæronæma adiposum Butl. Mem. Dept. Agric. in India, Bot. 6580 (1906) p. 40, t. X et. XI p. p. et apud Bankroft, Handb. Diseas. West Ind. Plants (1910) p. 41. — Mycelio lanuginoso nigro; hyphis fertilibus simplicibus, septatis, endoconidia efformantibus;

endoconidiis variabilibus, cylindraceis, piriformibus v. globosis, aliis hyalinis v. brunneis et levibus, aliis fuscis et verrucosis, 9- $25 \times 4,5-18$ ; sporulis semilunatis, hyalinis, continuis, utrinque acutis,  $6,5 \times 3,5$ .

Hab. in culmis Sacchari officinarum in Bengala. — Ex icone pyenidia sunt globulosa, pilosa in rostrum sextuplo longius, aciculare producta et apice globulo coronata.

- 16. Sphæronæma foliicola (Fuck.) Lind, Vidensk-Selskab. Skrift. 6581 Math. Naturw. Kl. Christiania (1909) n. 9, Extr. p. 13. Ita vocandum Ceratostoma foliicolum Fuck. Syll. IX p. 483, teste Lind l. c. Sphæronæma quercicola Oud. (citatum in Syll. XX p. 845 ex erroneo nomine in tab. IX Oud. et Konig in Arch. Néerl. 1902) est Sphær. Fagi Oud. in eorum textu p. 27.
- SPHÆRONÆMOPSIS Speg. Fungi Chilenses (1910) p. 151, (Etym. Sphæronæma et opsis aspectus). Pycnidia subsuperficialia carbonacea, subglobulosa longe tenuiterque ostiolata; sporulæ mediocres clavatæ, unicellulares, hyalinæ, paraphysibus septulatis longioribus obvallatæ.
- 1. Sphæronæmopsis chilensis Speg. l. c. p. 151. Pycnidiis ligno 6582 dealbato nitente leniter insculptis, lenticularibus 250-300  $\mu$ . diam. basi hyphis nonnullis repentibus cinctis; sporulis clavatis, 20-25  $\approx$  5, antice obtusis, postice longe rostrato-attenuatis, paraphysibus sporulâ triplo quadruplove longioribus, basi crassiusculis et septulatis, sursum attenuatis, filiformibus continuis, 60-100  $\approx$  5 cinctis.

Hab. in partibus emortuis Nothofagi cujusdam, Mapil Chile Amer. austr.

## YPSILONIA Lev. — Syll. III p. 215.

Ypsilonia vagans Spegazz., Fungi Paulist., Rev. Mus. La Plata I 6583

 XV (1908) p. 35. — Pycnidiis 75-90 μ. cr., hemisphærico-depressis, nigris membranaceis, contextu minuto denso subimperspicuo, sparsis v. laxe gregariis (an inferne apertis ac dimidiato-scutatis) in subiculo status ascophori insidentibus; sporulis e sporophoris mox diffluentibus ipsas æquantibus, ternatim exurgentibus, linearibus 10-15 × 1·1,25, continuis hyalinis, apice, setulis tribus rectis acutis, 30-35 × 1, concoloribus coronatis.

Hab. in subiculo Zukaliæ vagantis ad folia arbuscularum in Horto botanico S. Paulo Brasilia (USTERI). In foliis Spireæ

can toniens is adest forma altera (an species?) cujus sporulæ setulis duabus triplo longioribus, altera vero sporulam tantum æquante sunt coronatæ.

CICINNOBOLUS Ehrenberg — Syll. III p. 216, X p. 220, XI p. 502, XIV p. 904, XVI p. 890, XVIII p. 283.

1. Cicinnobolus Karstenii Sacc. et Trav. Syll. XIX p. 290, H. Kar-6584 sten Bot. Untersuch. (1866) p. 336 et in Ann. and. Mag. Nat. Hist. ser. III v. 19 (1867) p. 1, extr. t. 10 p. 11-13 (sine nomine). Pycnidiis parasiticis gregariis, globosis, 100-150 μ. diam., griseonigricantibus, minutissime asperulis, ostiolo obtuse papillato, periphysibus bacillaribus breviter exertis coronato; sporulis ovoideis v. ellipsoideis, minutissimis, hyalinis jodo cæruleo tincti, in cirrum longum tortuosum denique expulsis.

Hab. in antheris jam apertis, Fuchsiæ splendentis in Germania.

2. Cicinnobolus Ulicis Adams Irish Naturalist XVI (1907) p. 168 f. 6585 2-4 — Pycnidiis pedicellatis, fulvo-atris, 34-67 × 27-42; sporulis ovoideo-oblongis, continuis, hyalinis, 4,5-8,5 × 2-2,8.

Hab. in caulibus et foliis Ulicis europæi, Great Sugar Loaf, Co. Wicklow Hiberniæ (Ireland). Hyphæ pycnidiferæ intertextæ cum iis Erysiphaceæ sp. non determinatæ.

3. Cicinnobolus Artemisiæ Vogl., Ann. R. Ac. Agric. Torino XLVIII 6585\* (1905) p. 428, Atti R. Ac. Sc. Torino v. XLIII (1907-1908) p. 93 (247). — Pycnidiis sphæroideis, 80-90 μ. diam., rarissime oblongis v. piriformibus, membranaceis, ostiolatis, setis erectis, fuliginosis, in parte superiore, circa ostiolum, præditis; sporulis ellipsoideis v. amygdaliformibus, hyalinis, 4-6 × 2-25 pro more 5 × 2-2,5, rarius 3.

Hab. parasitice in mycelio Oidii erysiphoidis ad folia Artemisiæ in Pedemontio Italiæ bor.

4. Cicinnobolus Hieracii Bubák, Ann. Mycol IV (1906) p. 112. — 6586 Pycnidiis ellipsoideis v. ovoideis raro fere globosis, 49-62 × 28-35, flavidis v. brunneolis, contextu parenchymatico; sporulis ovoideis v. elongatis 6-11 × 3,5-4,5, apice rotundatis, hyalinis, in cirrum elongatum productis.

Hab. in foliis Hieracii silvatici parasitice in Oidii sp. (? Sphærothecæ Humuli) prope Eisenstein Bohemia.

Cicinnobolus Polygoni Potebnia, Myc. St. in Ann. Myc. V (1907) p. 6587
 et. Trav. Soc. Nat. Univ. Kharkov, XXXXIII (1907).

Pycnidiis difformibus, aliis piriformibus 70  $\times$  21-26, aliis sphæroideis 50-90  $\mu$ . cr. flavo-brunneis; sporulis 7,5-8,5  $\times$  2,5-3 rectis v. curvulis, hyalinis.

Hab. in Oidio et Erysiphe in folis Polygoni avicularis prope Kharkov. — Cicinnobolo Plantaginis Oud. proximus sed setulis destitutus.

## NEOTTIOSPORA Desm. — Syll. III p. 216, XVI p. 890.

1. Neottiospora schizochlamys Ferdinands. et Winge, Bot. Tidsskr. 6588 XXVIII (1908) p. 255, fig. 6. — Pyenidiis immersis, papilla erumpentibus, globosis v. subglobosis, contextu parenchymatico, circ. 250 μ. diam., nigris, seriatis; sporulis cylindraceis, v. cylindraceo-clavatis, utrique rotundatis, plasmate irregulariter partito, nebuloso, subsessilibus, primitus gelatina indutis, dein membrana gelatinosa longitudinaliter fissis, apice (2?)-4-ciliatis, 24-37 × 6-7,5, sæpe curvatis hyalinis, appendicibus 1 μ. cr. sporulas subæquantibus, primum sporulis adpressis dein erectis, corniformibus, hyalinis, mox evanescentibus.

Hab. ad caules siccos Scirpi cæspitosi prope Borris Jutlandæ, Dania.

2. Neottiospora lycopodina v. Höhn. Fragm. Mykol VII (1909) p. 6589 77. — Pycnidiis in ramulis nigrificatis sparsis, subepidermicis, nigris, coriaceis, globosis, supra late conoideis, ostiolo 10-12 μ. lato, 280 μ. circ. lat. 230 μ. altis, parietibus tenuibus 20-25 μ. cr., minute celluloso-plectenchymaticis; sporulis hyalinis, cylindraceo-clavatis, rectis v. curvulis, apice plerumque rotundatis basi angustato-acutatis 8-12 × 2-2,5, contextu homogeneo.

Hab. in ramulis adhuc vivis Lycopodii complanati, Sonntagsberg prope Waidhofen Austriæ (P. STRASSER).

SIROCOCCUS Preuss — Syll. III p. 217, X p. 220, XI p. 502, XIV p. 905, XVI p. 891, XVIII p. 285.

1. Sirococcus Calycanthi Speg., Myc. Argent. V p. 355 in An. 6590 Mus. Buenos Aires, XX (1910). — Tumores tuberiformes, 5-20 mm. diam., rameales verrucoso-difformes subsuberosos pallide sordideque rufescentes efformans; pycnidiis in rimulis basi tumorum infossis, superne exertis semiglobosis levibus 60-90 μ. diam., minute ostiolatis (ost. 10 μ. diam.) membranaceo-coriacellis, contextu, minute densissimeque parenchymatico, olivaceo-fusco; sporulis subcylindraceis, utrinque rotundato-subtruncatis 2-4 × 0,75-1, rectis v.

Syll. fung. XXII (III-1913)

leniter inæquilateralibus in catenulas longiusculas 25-50 μ. long. simplices v. ramulosas digestis, hyalinis, levibus, eguttulatis.

Hab. ad ramos vivos Calycanthi floridi culti in hortis Buenos-Aires Argentina, Amer. austr.

2. Sirococcus Echii Speg. Myc. Argent. V p. 356, in An. Mus. 6591 Nac. Buenos-Aires XX (1910). — Pycnidiis matrice denudata infuscataque immersis, subglobosis 150-180 μ. diam., tenuissime membranaceis, ostiolo minutissimo depresso præditis; sporulis cylindraceis utrinque rotundatis, 10-12 × 1,75, rectis v. lenissime subcurvulis, 6-10-guttulatis, hyalinis, in catenulas tri-pentameras sporophoris concoloribus sublageniformibus 5-6 × 1,5-2 acrogenas digestis.

Hab. ad caules aridos putrescentesque Echii plantaginei in pratis circa La Plata Reip. Argentinæ Amer austr.

3. Siroccocus mendozanus Speg. Myc. Argent. V p. 356, in An. 6592 Mus. Nac. Buenos-Aires XX (1910). — Pycnidiis cortice insculptis, primo epidermide velatis dein plus minusve erumpentibus, sparsis v. laxe gregariis, globoso-subconoideis, 150-180 μ. diam. subcarbonaceis; sporulis cylindreceis utrinque obtusis 4-6 × 1, rectis v. curvulis in catenulas tetra-hexameras, in apice sporophororum filiformium (10-12 × 1) acrogenas, digestis, hyalinis, eguttulatis.

Hab. ad ramos languentes Artemisiæ mendozanæ in montuosis Cacheuta prope Mendoza Amer. austr.

4. Sirococcus Elasticæ Koord., Botan. Untersuch. (1907) p. 207. — 6598 Pycnidiis subglobosis, superficialibus gregariis, glabris, stromate destitutis, c. 60-100 μ. diam., nigris intus niveis, subastomis, contextu prosoplectenchymatico, fusco; sporulis continuis hyalinis 4 × 1,75-2 ovoideis v. late cylindraceis, e conidiophoris cylindraceis 8 μ. longis, hyalinis, catenulatim oriundis.

Hab. in foliis emortuis Fici elasticæ prope Purworedio prov. Kedu Java (Koorders).

5. Sirococcus Cycadis Speg. Myc. Argenti V p. 356 in An. Mus. 6594 Buenos-Aires XX (1910). — Maculis quandoque nullis, quandoque arescentibus (heterogeneis?) determinatis; pycnidiis amphigenis erumpenti-superficialibus subconoideis 100-120 μ. diam., obsolete papillato-ostiolatis, subcarbonaceis, nigris, glabris; sporulis breviter cylindraceis, utrinque subtruncatis 2-6 × 1,75-2, catenulas in sporophoris longiusculis (15-35 × 1-1,5) sursum leniter incrassatulis v. bifidis acrogenas efformantibus, eguttulatis, chlorinulis.

Hab. vulgata ad folia arida Cycadis revolutæ in hortis Claypole et La Plata Reip. Argentinæ Amer. aust.

6. Sirococcus Puyæ Speg., Fungi Chilenses (1910) p. 151. — Pycni-6595 diis hypodermicis amphigenis hemisphericis, carbonaceis, minute ostiolatis, 90-100 μ. diam.; sporulis cylindraceis, utrinque truncato-rotundatis, 4-6 × 2,5-3,5, in catenulas simplices 40-50 μ. long., digestis, sporophoro 10-12 × 3,5 sustentis.

Hab. in foliis siccis emortuis Puyæ cæruleæ, Cerro de San Cristobal ad Santiago Chile Amer austr.

7. Sirococcus Maydis Speg., Fungi Chilenses (1910) p. 151, cum 6596 icon. — Pycnidiis sparsis v. laxe gregariis, primo epidermide tectis dein nudis, subsuperficialibus, hemisphærico-depressis, 120-150 μ. diam., subastomis, atris, subcarbonaceis; sporulis cylindraceis utrinque truncatis, 5-10 × 1,5-1,75, unilocularibus, in catenulas sæpius bifidas longiusculas digestis, 50-80 μ. long., hyalinis.

Hab. in culmis siccis subputrescentibus Zeæ Maydis, San Bernardo prope Santiago Chile Amer. austr.

**PYRENOCHÆTA** De Not. — Syll. p. 219, X p. 220, XI p. 503, XIV p. 905, XVI p. 892, XVIII p. 286.

Pyrenochæta Erysimi Hollós, Ann. Mus. Nac. Hung. IV (1906) p. 8597
 341. — Pycnidiis globoso-concideis, ostiolo erumpente setis coronato, nigris, 190-210 μ. diam., contextu parenchymatico; setis rigidis, fuscis, septatis, apice hyalinis, 70-100 × 4; sporulis cylindraceis, rectis v. curvulis, utrinque rotundatis, plerumque 4-guttulatis, continuis, hyalinis, 10-12 × 2-2,5.

Hab. in foliis siccis Erysimi canescentis prope Kecskemét Hungariæ.

2. Pyrenochæta Heliettæ Speg. Myc. Argent. V p. 533, in An. 6598 Mus. Buenos Aires, XX (1910) — Maculis hypophyllis obsotetissimis subdisciformibus, 2-5 mm. diam.; pycnidiis sat numerosis, innato-subsuperficialibus, hemisphæricis, 75-100 μ. diam., astomis, superne glabris, basi hyphis paucis radiantibus, chlorinis, 30-90 × 3-5, flexuosis, ramulosis ornatis; sporulis subcylindraceis, utrinque rotundatis, 3-5 × 1, rectis curvulisve, interdum medio coarctatulis, hyalinis, eguttulatis v. minute 2-guttulatis.

Hab. ad folia languida Heliettæ cuspidatæ in silvis Puerto Leon, Misiones, Argentina. — Quoad genus dubia species.

3. Pyrenochæta Filarszkyi Bubák, Beitr. Pilzfl. Ung., in Növénytani 6599 Közlemények (1907) Heft. 4, Extr. p. 30. — Maculis foliicolis

utrinque visibilibus, 2-5 mm. latis, rotundatis v. irregularibus, late distributis, flavo-alutaceis, striolis angustis obscure brunneis limitatis; pycnidiis subepidermicis, globosis 150-180 µ. latis, nigro-brunneis, contextu grosse parenchymatico brunneo, poro obscuriore lato depresso prominentibus; setulis ostiolaribus usque ad 12, rectis, filiformibus subhorizontalibus, obscure brunneis, septatis, 100-140 µ. longis, apice angustatis, basi usque ad 9 µ. cr.; sporulis numerosis, cylindraceis, 9-15-(raro 18) × 3-4, rectis, raro curvulis, apice rotundatis; sporophoris hyalinis breviter cylindraceis.

Hab. in foliis vivis Tiliæ parvifoliæ, Csernatal prope Herculesfürdő Hungaria.

4. Pyrenochæta robiniana d'Alm. et de Souza da Cam. in Rev. 6600 Agron. Lisboa, (1905) p. 144, t. III f. 1-3. — Pycnidiis sparsis superficialibus, subgloboso-conicis, aterrimis, 150-200 µ. latis; setis concolaribus, divergentibus, continuis, simplicibus, rigidis, sursum attenuatis pallidisque 200-250 µ. longis; sporulis continuis, fusiformibus 8-10 × 2-2,5 subhyalinis sporophoris basilaribus 25-30 u. suffultis.

Hab. in cortice Robinia Pseudacacia prope Coimbra Lusitania. — Differt præcipue a Pyr. Robiniæ, setis circa ostiolum haud orientibus.

5. Pyrenochæta cereicola Speg., Myc. Argent. V p. 353, An. Mus. 6601 Buenos Aires XX (1910). — Pycnidiis hinc inde erumpentibus, solitariis v. pauci-gregariis, subglobosis 200-250 µ. diam., eximie papillato-ostiolatis, hyphis patentiusculis, olivaceis, 1-pluri-cellularibus, gracilibus 30-120 \* 67 conspersis; sporulis subellipticis, utrinque rotundatis, 34-40 × 14-16, rectis curvulisve, hyalinis nubilosis (an serius fuligineis?)

Hab. ad ramos languidos v. emortuos Cerei Hænkeani in silvis prope Santa Ana, Misiones Argentina.

6. Pyrenochæta leptospora Speg. Myc. Arg. V p. 354, in An. Mus. 6602 Buenos Aires XX (1910). — Pycnidiis hemisphæricis, sparsis, superficialibus, coriacellis, atris, 100-120 µ. diam., basi ad marginem pilis 3-10 uncinatis v. arcuatis v. circinatis 20-40 × 2-4 hyalinis ornatis, irregulariter dehiscentibus; contextu indistincto; sporulis e tereti subfusoideis, continuis, 3-7-guttulatis.

Hab. ad folia Lauraceæ cujusdam, Puerto Leon, Misiones, Argentina.

7. Pyrenochæta Phlogis Massee, Kew. Bull. (1907) p. 241, f. 1 et Diseas. 6608

cultiv. Plants, 1910, p. 420, f. 131:1-2. — Pycnidiis dense gregariis globosis, immerso-erumpentibus, membranaceis setulis nigris numerosis rigidulis prope ostiolum vestitis; sporulis ellipsoideis, hyalinis  $5 \times 3$ , sporophoris bacillaribus hyalinis suffultis.

Hab. in caulibus Phlogis var. sp. cultarum, quibus valde noxia in hortis Kew Anglia.

8. Pyrenochæta vexans Syd. Hedwigia XLIX (1909) p. S2. — Ma-6603 culis primo minutis, mox majoribus confluentibusque et sæpe totum spatium inter nervos primarios occupantibus, tandem delapsis, griseis rufo-marginatis; pycnidiis amphigenis, globosis, atris, poro usque ad 20 μ. lato pertusis, circa porum setis paucis atro-brunneis apicem versus attenuatis 70-125 μ. longis. obsitis; contextu fuligineo, circa porum obscuriore; sporulis numerosis, anguste ellipsoideis, hyalinis, continuis, 4-6 × 2-2½.

Hab. in foliis vivis vel languidis Sancheziae nobilis, Para, Brasilia (C. F. BAKER).

9. Pyrenochæta Centaureæ Voglino, Atti R. Ac. Sc. Torino v. 6604 XLIII (1907-1908) p. 94 (248); Bull. Soc. Agric. it. XIII (1908) p. 4. — Amphigena sed plerumque hypophylla, maculis indeterminatis, latiusculis, griseis v. cinereo-fuscescentibus; pycnidis numerosis, plerumque superficialibus inter pilos folii seu innato-erumpentibus, globoso-conoideis, piriformibus umbrinis, coriaceo-carbonaceis, ad verticem attenuatum seu circa ostiolum latiusculum, setis rigidis, septatis, plus minus copiosis, fuligineo-atris, usque ad 140 μ. longis, 4 μ. latis, hirtis, 70-100 μ. latis, sporophoris cylindraceis, sporam æquantibus; sporulis ovoideis v. ellipsoideis, utrinque rotundatis, hyalinis, 4-5 × 2,5.

Hab. in foliis vivis Centaure e candidissime que nigrescunt et flaccide fiunt, in hortis Pedemontii Italie bor.

10. Pyrenochæta Dichondræ Speg., Myc. Argent. V, p. 353, in An. 6605 Mus. Buenos Aires, XX (1910). — Maculis nullis; pycnidis hypophyllis superficialibus, sparsis, hemisphæricis, 75-100 μ. diam., nigris, astomis, setulis patentiusculis simplicibus, 25-85 × 4-5, subfuligineis, 1-2-cellularibus vestitis; sporulis subcylindraceis, eguttulatis, minimis, utrinque obtuse rotundatis, 4 × 1,7, hyalinis rectis curvulisve.

Hab. ad folia viva Dichondræ repentis in silvis prope Bompland, Misiones, Argentina.

11. Pyrenochæta Aristolochiæ Speg., Myc. Argent. V, pag. 352, in 6606 An. Mus. Buenos Aires, XX (1910). — Maculis repando-orbicularibus, cinereo-albicantibus, determinatis, areola angusta purpurascente cinctis, 5-10 mm. diam.; pycnidiis epiphyllis superficialibus paucis, hemisphæricis, astomis, 100-150  $\mu$ . diam., pilis nonnullis concoloribus, flexuosis, simplicibus patentiusculis, 40-50  $\times$  4-5 parum supra basim adspersis; contextu obsolete parenchymatico subopaco; sporulis ellipsoideis nubilosis, utrinque rotundatis, 8-10  $\times$  3-4, hyalinis, rectis.

Hab. ad folia languida Aristolochiæ Esperanzæ in dumetis ad ripas Rio Sora, Salta, Argentina.

12. Pyrenochæta fallax Bres. in Strasser III Nachtr. Pilz. Sonntagb. 6607 in Verhandl. zool. bot. Gesell. Wien (1905) p. 615). — Pycnidiis gregariis, initio epidermide velatis, dein superficialibus, nigris, carbonaceo-membranaceis, contextu subparenchymatico, subgloboso-depressis, 0,25-0, 33 mm. latis, ostiolo cylindraceo, valde prominulo, plus minusve setuloso, setulis fuseis, septatis, apice cuspidatis, 80-100 × 5; sporulis hyalinis, elongatis, biguttulatis, 4-5 × 1,5-1,75.

Hab. ad caules Urticæ dioicæ, Sonntagberg Austr. inf.

13. Pyrenochæta orchidophila Speg., Myc. Argent. V, pag. 354, in  $^{6608}$  An. Mus. Buenos Aires, XX (1910). — Maculis nullis; pycnidiis amphigenis, erumpenti-superficialibus, astomis, coriacellis, atris, 130-180  $\mu$ . diam., setulosis, contextu opaco indistincto; setulis simplicibus acutis rectiusculis, non v. vix incrassatulis, 50-100  $\approx$  5-6, subcontinuis fuligineis; sporulis cylindraceis utrinque rotundatis,  $18\text{-}20 \approx 5\text{-}6$ , hyalinis, nubilosis, rectis.

Hab. ad folia emortua adhuc pendula Isochili linearis in silvis prope Ledesma, Argentina.

14. Pyrenochæta Oryzæ I. Miyake, Pilze Reispfl. Japan in Journ. College Agricult. Tokyo, II (1910) pag. 255, t. XIV, fig. 36-42. — Pycnidiis immersis vix prominulis, nigro-brunneis, ellipsoideis, 200 μ. diam., 120 μ. alt., ostiolo 6-20 setulis nigris multiseptatis plus minusve patentibus 60-140 × 4-5 circumdato, ostiolo extus 40 μ. intus 12 μ. circ. lato; sporulis fusoideis 4-6 × 1,5-2, utinque guttulatis.

Hab. in foliis glumisque decoloratis dein brunneis Oryzæ sativæ, Japonia.

15. Pyrenochæta Hepaticarum Sacc. et Trott. Cfr. supra p. 149. Est 6610 status pycnidicus *Stigmateæ Hepaticarum* Patouill., Bull. trim. Soc. Myc. Fr. XXI (1905) p. 121.

Hab. in thallo Lunulariæ in Algeria Afr. bor.

16. Pyrenochæta Geasteris Hollós, Ann. Mus. Nat. Hungar. V (1907) 6611 pag. 281. — Pycnidiis gregariis sparsisve, semiglobosis, ostiolo conico setis coronato, fuscis, 210-250 μ. diam., contextu parenchymatico; setis rigidis, flavo-brunneis, septatis, apice obtusatis, 170-250 × 6-8; sporulis cylindraceis, utrinque rotundatis, rectis, continuis, hyalinis, 14-20 × 3-3,5.

Hab. in stratu interno exoperidii Geasteris fornicati pr. Kecskemét Hungariæ.

Subgen. Trichocicinnus Sacc. — Pycnidia parasitica, cicinnoboloidea.

17. Pyrenochæta erysiphoides Saccardo, Not. Myc. VI, Ann. Myc. 6612 v. III (1905) pag. 512. — Biophila, hypophylla, laxe gregaria; pycnidiis omnino superficialibus, globulosis, subastomis, vertice obtusis, 150-160 μ. diam., ubique setulosis; contextu tenui-membranaceo, 1-stratoso, olivaceo-fuligineo; setulis radiantibus, simplicibus, septatis, 80-125 × 4, atro-fuligineis, apice obtusulis, pallidioribus; sporulis sessilibus oblongo-cylindraceis, rectis, utrinque rotundatis, obsolete 2-guttulatis, hyalinis, 3-4 × 2.

Hab. in pag. inf. foliorum vivorum Cirsii arvensis, Selva (Treviso) Ital. bor. — Fungillus eximius, habitu omnino erysiphaceo, ob vitam parasiticam a typo distinguendus. Trichocicinnus dixi l. c. quasi sit Cicinnobolus setosus.

- STAUROPHOMA v. Höhnel, Ergebn. Bot. Exp. Südbras. 1901, Denk. k. Ak. d. Wiss. Wien Bd. LXXXIII (1907) Extr. p. 34 (Etym. stauros crux et Phoma). Subiculum tenui-membranaceum, ex hyphis intricatis, formatum; pycnidia superficialia, rotundata brunnea, ostiolata, supra pilis tenuibus, cruciatim ramosis, brunneis tecta; sporidia hyalina, subglobosa v. elongata, unilocularia. Ab affini gen. Staurochæta differt subiculo distincto, pycnidiis ostiolatis, cæspitosis.
- 1. Staurophoma Panici von Hönel, l. c. tab. I, fig. 7. Pycnidiis 6618 laxe cæspitosis, numerosis, hypophyllis, in maculis 1-1,5 cm. elongatis, brunneo-nigris insidentibus, rotundatis, supra depressis, late ostiolatis, epapillatis; pilis unilocularibus, 14-18 μ. long., 3-4 cruciatim ramosis, infra obconoideo-angustatis; subiculo tenui membranaceo ex hyphis brunneolis, 1-2 μ. cr., tenuissime tunicatis, constituto; sporulis numerosissimis, hyalinis, unilocularibus, rotundatis v. ellipsoideis, 1-2 × 1.

Hab. in foliis Panici sulcati, Sao Paulo Brasilia, America australis.

**CHÆTOPHOMA** Cooke — Syll. III p. 199, X p. 216, XI p. 501, XIV p. 900, XVI p. 889, XVIII p. 282.

1. Chætophoma Biscutellæ C. Mass. in litt. 18, III, 1906, in Sacc., 6614 Not. Myc. VII, Ann. Myc. IV (1906) p. 273. — Foliicola, amphigena; subiculo fuligineo late effuso, ex hyphis 5-8 μ. cr. cladosporioideis, ramosis septatis et dense intertextis formato; pycnidiis mycelio nidulantibus, vulgo obovatis v. ellipsoideis, 42-54 × 20-28, membranaceis; sporulis ovoideis, polari-2-guttulatis, 6-9 × 3-4, hyalinis.

Hab. ad folia viva Biscutellæ levigatæ, in glareosis torrentis Progno prope Marcenigo prov. Veronensis, Ital. bor. (C. Massalongo). — Ob formam pycnidii et characteres sporularum inter congeneres magis affines facile distincta species.

2. Chætophoma melanopotamica Speg., Myc. Argent. V, p. 351, in 6615 An. Mus. Buenos Aires XX (1910). — Maculis nullis; pycnidiis amphigenis, hinc inde coacervatis, globosis, astomis, hyphis radiantibus et intertextis e hyalino subchlorinis 50-200 × 2-5 insidentibus, membranaceis, nigris, 75-100 μ. diam., centro per ætatem minute stellatim dehiscentibus, contextu minutissime indistincte parenchymatico, olivaceo; sporulis subcylindraceis, grosse 2-3-guttulatis, utrinque obtusulis, 6-8 × 2, hyalinis.

Hab. ad folia viva Adenostemi nitidi in silvis Andinis, Neuquem, Argentina.

3. Chætophoma scoriadea Speg., Fungi Chilenses (1910) pag. 148, 6616 cum icon. — Subiculo nigro, crassissimo, pannoso-scruposo, articulis cuboideis grosse uniguttulatis (verisim. est *Antennari scoriade* Berk.); pycnidiis subiculo absconditis, ovatis, 50-60 × 50-80, olivaceis, glabris, membranaceis, minute eximieque papillato-ostiolatis; sporulis subcylindraceis, utrinque obtusis, 4 × 1,5, hyalinis.

Hab. frequens in foliis vivis Boldoæ fragrantis pr. Talcahuano Chile Amer. austr. — Chætoph. pelliculæ Sacc. et Syd. affinis.

4. Chætophoma Penzigi Sacc. — Syll. III, p. 200 — var. theicola 6617 Speschn., Arb. Bot. Gart. Tiflis, Lief. VI, Heft III, pag. 10. — A typo præter matricem, differt sporulis 8-14 × 2-3 (nec tantum 3-5 × 2).

Hab. in foliis, que vitiantur, Theæ sinensis pr. Batum in

Caucaso. — Ob sporulas plusquam duplo longiores videtur specifice distinguenda.

5. Chætophoma microspora Spegazz, Fungi Paulist., Rev. Mus. La 6618 Plata t. XV, p. 35. — Pycnidiis hinc inde laxe gregariis, subiculo tenuissimo parenchymatico hyphas Asterinæ? cujusdam sterilis hypophyllæ incrustante suffultis, e globoso piriformibus v. sublageniformibus 30-50 μ. diam., ostiolo perforatis, pellucidis, contextu dense minuteque parenchymatico olivaceo; sporulis rectis, utrinque obtusiusculis 2-2,5 × 1-1,25, eguttulatis, hyalinis.

Hab. ad folia viva Spirææ cantonensis in Horto botan. Sao Paulo Brasilia (USTERI).

6. Chætophoma? trichothecia Speg., Myc. Arg. V, pag. 352, in An. 6619 Mus. Buenos Aires, XX (1910). — Pelliculoso-subcrustacea, late effusa, nigra, subiculo ex hyphis toruloso-articulatis (articulis 10-20 × 5-6) crebre intertextis formato; pycnidiis lanceolatis stipite 100-250 × 10-20 suffultis, sursum longe attenuato-ostiolatis, atrıs, opacis, apice minute fimbriatis, 150-250 × 40-50, contextu parenchymatico; sporulis ellipsoideis, utrinque rotundatis, 5-6 × 2,5-3, rectis curvulisve, eguttulatis v. minute 2-guttulatis, hyalinis.

Hab. ad folia ramulosque Myrsines africanæ in hortis La Plata, Argentina. — Certe sistit. ceratopycnidium Capuodii sp.

7. Chætophoma venturioides Sacc. et Berl. — Descripta in Syll. IX, 6620 p. 406 ut st. pycnidicus *Dimerosporii venturioidis* Sacc. et Berl.

Hab. in pag. sup. Convolvulace a cujusdam, Santos Bras.

8. Chætophoma erysiphoides Griff. et Maubl., Bull. Soc. Myc. Fr. 6621 XXV (1909) p. 60, cum icon. — Pycnidiis hypophyllis, sparsis, superficialibus, globosis, nigris, apice poro minuto pertusis, contextu tenui celluloso 110-150 μ. diam., pilis rigidis, fuligineis, septatis, usque ad 100 μ. longis, plus minusve numerosis ornatis; mycelio superficiali, tenuissimo, fuligineo, ex hyphis effusis, ramosis, septatis composito; sporulis globulosis v. late ovatis, eguttulatis, chlorinis, 3-5 × 2,5-4.

Hab. in foliis adhuc vivis Quercus Ilicis jam Oidio quercino pervasis, Cadillac Gironde Galliæ (CAPUS). — Ckæi. setigeræ Peck proxima.

Chætophoma microsperma (Corda) Sacc. et Trav. — Syll. XIX, 6622
 p. 266 — Pleuropyxis microsperma Corda Icon. fung. I, p. 23,
 t. VI, pag. 291. — Mycelio effuso, fusco; hyphis ascendentibus,
 laxis longissimis, simplicibus, 3-4 μ. cr. septatis; pycnidiis sub-

ovatis, rugulosis, atro-fuscis, irregulariter ruptis; sporulis lunulatis, minutis, obtusis, hyalinis, 2,4-2,5 μ. long.

Hab. in ligno nudo betulino putri pr. Reichenberg Bohemiæ.
10. Chætophoma glumarum I. Miyake, Pilze Reispfl. Japan (Journ. 6628 College Agricult. Tokyo, II (1910) p. 254, t. XIV, f. 33-35. — Maculis albescentibus mycelio nigrescente præditis; pycnidiis gregariis, globosis v. ellipsoideis nigris 80-125 μ. diam.; sporulis hyalinis rotundato-ovoideis vel ellipsoideis, utrinque guttulatis, 5-7,5 × 2,5-3.

Hab. in glumis Oryzæ sativæ, Ochi-gun, Ehime Japonia.

11. Chætophoma incrustans Spegazz., Fungi Paulist., Rev. Mus. La 6624 Plata t. XV (1908) p. 34. — Pycnidiis subiculo status ascophori insidentibus, hinc inde laxe gregariis, subglobosis 50-80 μ. diam., minute ostiolato-pertusis, atris, tenuibus, membranaceis, contextu minute parenchymatico, olivaceo; sporulis rectis v. intequilateralibus, 4-6 × 2.

Hab. in subiculo Dimerii inconstantis ad folia ignota, Ipiranga, Brasilia (USTERI).

12. Chætophoma meliolicola Spegazz., Fungi Paulist., Rev. Museo La 6625 Plata t. XV, p. 34. — Pyenidiis subiculo stato ascophori insidentibus hinc inde laxe pauci-gregariis 75-90 μ. cr., ostiolo umbonato perforatis membranaceis, contextu parenchymatico minuto fuligineo; sporulis rectis utrinque obtusissime rotundatis 8-10 × 3-3,5 biguttulatis hyalinis.

Hab. in subiculo Dimerosporii meliolicolæ ad folia Caseariæ cujusdam, Ipiranga até Cambucy, Brasilia (USTERI).

13. Chætophoma paulistana Spegazz, Fungi Paulist., Rev. Mus. La 6626 Plata t. XV, p. 35. — Pycnidiis epiphyllis sparsis v. hinc inde pauci-gregariis, globoso-depressis, 50-100 μ. diam., astomis subiculo heterogeneo?, olivaceo superficialibus, membranaceis, contextu dense minuteque parenchymatico fuligineo; sporulis ellipsoideis ovatis v. subnavicularibus utrinque obtusis 4-6 ≈ 2, sæpe medio leniter coarctatulis, minutis biguttulatis hyalinis.

Hab. ad folia coriacea arboris cujusdam ignotæ, Ipiranga Cambucy, Brasilia (USTERI).

**ASTEROMA** DC. — Syll. III p. 201, X p. 219, XI p. 501, XIV p. 901, XVI p. 889, XVIII p. 283.

1. Asteroma deflectens Karst., Acta Soc. pro Faun. et Fl. fenn. 6627 XXVII, IV (1905) p. 10. — Maculis amphigenis, atris, opacis, latis,

irregularibus, confluentibus, subinde paginam folii totam obtegentibus, uniformibus, absque fibrillis; pycnidiis sparsis, prominulis, astomis, mediocribus, sphæroideis, depressis; sporulis... non visis.

Hab. in foliis emortuis Lathyri pratensis, Tammela Fennia. -- Forte species Glæosporii.

2. Asteroma Spirææ Kab. et Bub., Hedwigia, XLVII (1908) p. 355; 6628 Fungi imp. exsicc. fasc. XI (1909) n. 506. — Maculis amphigenis, sparsis, plus minusve rotundatis, 6-10 mm. diam., brunneis, non v. flavido-marginatis, quandoque confluentibus; fibrillis plus minus regulariter radiantibus, nigris, copiose anastomosantibus, apice pallidioribus; pycnidiis non visis.

Hab. in foliis emortuis Spirææ Chamædryos prope Gross-Skal Bohemia (KABAT).

3. Asteroma ceramioides Sacc., Ann. mycol. VIII (1910) p. 343. — 6629 Eximie tenuissime reticulatum, nigrum nitidum; ramulis adpressis radiantibus, repetite ramoso-anastomosantibus ex pycnidiis uniseriatis, creberrimis inter se fibrillis brevissimis cellulosis connexis formatis; pycnidiis subhemisphæricis, perexiguis, 50-60 μ. diam., adnato-superficialibus, atro-nitentibus, contextu distincte parenchymatico, fuligineo, cellulis 6-8 μ. diam., centralibus minoribus, dilutioribus, demum secedentibus et ostiolum inæquale 14-16 μ. d. relinquentibus; nucleo . . . . immaturo, guttulis oleosis sphæricis, variæ magnitudine fæto.

Hab. in caulibus emortuis Smyrnii Olusatri, Villa Favorita, Palermo Siciliæ (J. H. Mattei). — Pulchalla species Ceramii v. Callothamnii species quasdam æmulans.

4. Asteroma Antholyzæ Sacc. Ann. Mycol. VI (1908) pag. 555. — <sup>6680</sup> Amphigenum, maculas dense gregarias atro-olivaceas, subquadrangulas sistens; hyphis in folio transverse excurrentibus, filiformibus, 5-6,5 μ. cr. olivaceo-fuscis, septatis, breve ramosis, laxe intricatis, subinde vero in fasciculos junctis; ramulis obtusis; conidiis (propriis?) interspersis globoso-ellipsoideis, 8 × 6-7, fuligineis; pycnidiis . . . nullis visis.

Hab. in foliis morientibus Antholyzæ bicoloris, Villa Favorita Palermo, Sicilia (J. H. Matter). — Habitus omnino Asteromatis.

5. Asteroma Lloydiæ Cruchet in Bull. Soc. Vaud. Sc. nat. XLIV 6631 (1909) p. 472. — Maculis expansis caulicolis v. foliicolis, primum pallide brunneis, dein obscure brunneis, demum nigris; fibrillis tenuissimis, parce ramosis, parallelis; conceptaculis sparsis, raro

gregariis, minutulis, fere nigris; sporulis cylindraceis, unilocularibus, utrinque obtusis, bacillaribus,  $3-4 \times 0.5$  hyalinis.

Hab. in caulibus foliisque Lloydiæ serotinæ, in Alpibus Valesiacis Helvetiæ. — Socia Sphærella Burnati (Cruch.).

VERMICULARIA Fr. — Syll. III p. 221, X p. 222, XI p. 503, XIV p. 907, XVI p. 894, XVIII p. 287.

Vermicularia serbica Bubák et Ranojevic, Ann. Mycol. VIII 6632 (1910) p. 385, fig. 1-5. — Pycnidiis in petiolis foliorum æque et crebre distributis, ex ellipsoideo elongatis, raro rotundatis, nigris, 200-350 μ. diam., conoideis, dein applanatis, setulis longis nigris, usque 500 × 6-8, 3-6-septatis, apice acutatis præditis; sporulis subfalcatis, raro rectis, 20-24 × 2,5-4, utrinque subacutatis, hyalinis; sporophoris primum brunneis, dein pallidioribus, demum hyalinis, cylindraceis papilliformibus, 10-20 × 4-6, quandoque dentatis.

Hab. in petiolis vetustis foliorum Ranunculi auricomi pr. Belgrad et Cer, Serbia.

2. Vermicularia oligotricha Bubák et Kabát, Hedwigia XLIV (1905) 6638 p. 351. — Pycnidiis fere regulariter distributis, raro confluentibus, 60-250 μ. diam., rotundatis v. ellipsoideis, depressis, subepidermoideis dein erumpentibus, primum obscure brunneis, dein fere nigris, nitidulis, setulis paucis radiantibus, cylindraceis apicem sensim angustatis, obscure brunneis, hinc inde subcurvulis, basi quandoque fortiter inflatis, 20-70 \* 4, tectis; contextu parenchymatico, pallide brunneo supra obscuriori; sporulis ellipsoideis ex elongato cylindraceis fusoideis, apice rotundatis, uno latere quandoque angustatis, rectis v. curvulis, 10-15 \* 3,5-4, hyalinis; sporophoris fasciculatis, cylindraceis, rectis v. varie incurvatis, apice rotundatis 10-30 \* 4-5, basi brunneolis, supra e pallido hyalinis.

Hab. in ramis siccis Rubi suberecti prope Ktová Bohemia (Kabat).

3. Vermicularia cerasicola Aderh. in Arb. Biol. Anstlt f. Land. u. 6634 Forstwirtschaft IV (1905) p. 462, fig. 2. — Pycnidiis amphigenis, sparsis, globosis, alte prominulis, atris, 60-100 μ. diam., ubique setis 3 subinde numerosis, usque ad 140 μ. longis, basi 5-6 μ. latis, acutis continuis atris obsitis; sporulis leniter curvulis, continuis, fusoideis, utrinque acutis, 23-255 × 2,3-3,5.

Hab. in foliis dejectis Pruni avium, Proskau Silesiæ.

4. Vermicularia Jatrophæ Speg., Myc. Argent. V, pag. 354, in An. 6685 Mus. Buenos Aires, XX (1910). — Maculis amphigenis repando-

orbicularibus, 5-10 mm. diam., cinerescenti-fuscescentibus; pycnidiis epiphyllis, paucis, sparsis v. subcircinantibus erumpenti-superficialibus subhemisphæricis 100-150  $\mu$  diam., atris, pilis fuligineis subopacis pluricellularibus rigidulis rectiusculis acutiusculis, 50-150  $\times$  5-6, dense vestitis, coriacellis, contextu indistincto olivaceo; sporulis cylindraceo-lunatis, utrinque acutatis,  $24-26 \times 3-4$ , hyalinis, nubilosis.

Hab. ad folia languida Jatrophæ macrocarpæ in dumetis montanis prope Tucumán Argentina, Amer. austr. — Vermicul. (Chætomellæ) Stevensoni Ell. valde affinis sed certe distincta.

5. Vermicularia varians Ducomet, Ann. Ecole nat. Agricult. Rennes 6636 t. II (1908) pag. 47, fig. 14-24. — Pycnidiis initio erumpentibus dein superficialibus 75-150 μ. cr., astomis, pilis nigris 100-130 × 3,5-4, biseptatis, basi parum inflatis, apice pallidis attenuatisque donatis; sporulis curvulis, acuminatis, hyalinis, guttulatis 18-22 × 2,5-3; sporophoris incoloribus v. basi brunneis, 20-30 × 3-3,5.

Hab. parasitica in partibus aereis v. subterraneis Solani tuberosi nec non Physalidis peruvianæ, Rennes, Gallia. — Species quam maxime variabilis, et ad gen. Phomam, Colletotrichum et Glæosporium simul vergens.

6. Vermicularia atricha Ell. et Ev. in Millsp. Field Columb. Mus. 6637 II 4° 1 (1900) p. 16, t. LIII. — Maculis orbicularibus, rubiginosis, 2-4 mm. diam., centro saturatioribus; pycnidiis amphigenis, innatis, minutis, 75-100 μ. diam., apice pertusis, setulis obsoletis; sporulis lunatis, acutis, 3-4-nucleatis, 15-20 × 3.

Hab. in foliis Petiveriæ alliaceæ, Caguas Portorico Tabula non adest in meo exempl.

Vermicularia Dematium (Pers.) Fr. — Syll. III, p. 255 — var. 6638 macrospora Speg., Myc. Argent. V, p. 354, in An. Mus. Buenos Aires, XX (1910). — A typo differt sporulis dimidio longioribus, nempe 28-31 × 5, hyalinis, multiguttulatis.

Hab. ad caules aridos Medicaginis orbicularis in hortis La Plata Argentina. — Var. Juglandis Hollós, ·Ann. Mus. Nac. Hung. IV (1906) p. 341. — Pycnidiis erumpenti-superficialibus, nigris, depressis, 140-180 μ. diam., setulis rigidis, nigris, septulatis, 250-320 × 7-8; sporulis cylindraceis, utrinque acutis, granulosis, hyalinis, 24-25 × 3-3,5. — In epicarpio putrido Juglandis regiæ, Kecskemét Hungariæ. — Var. Lycoctoni Potebnia, Myc. Stud., in Ann. Myc. V (1907) p. 15 et Trav. Soc. Nat. Univ. Kharkov, XXXXIIII (1907). — Pycnidiis 150-200 μ., setulis 170-200 ×

- 5-6, obscure brunneis apice pallidioribus; sporulis fusoideis, curvulis,  $23 \approx 3.5$ , intus nucleatis, quandoque septo inconspicuo præditis. In foliis et petiolis Aconiti Lycoctoni pr. Kursk.
- 8. Vermicularia Cataseti v. Höhnel, Ergebn. Bot. Exp. Südbras. 1901, 6639 Denk. k. Ak. 4. Wiss, Wien Bd. LXXXIII (1907) Extr. p. 34. Pycnidiis superficialibus amphigenis, greges rotundatos usque ad 1 cm. latos efformantibus, punctiformibus, nigris, depresse conoideo-hemisphæricis, basi late insidentibus, 80-160 μ. latis, setulis numerosis unicellularibus, obscure brunneis apice pallidioribus, acutis, curvatis, 40-80 × 5-6 tectis; membrana pycnidiorum tenui, grosse parenchymatica; sporulis unilocularibus, rectis, hyalinis, cylindraceis, utrinque rotundatis, 14-18 × 5-6.

Hab. in foliis Cataseti fimbriati, prope Salto Grande d. Rio Paranapamena Sao Paulo Brasilia, Amer. austr.

9. Vermicularia affinis Sacc. et Br. — Syll. X, p. 227 — var. Cala-6640 magrostidis Karst., Acta Soc. pro Fauna et Fl. fenn. XXVII, 4 (1905) p. 15. — Pycnidiis innatis, sparsis, sphæroideis, 40-50 μ. diam., setulis parcis, rigidis, brunneis, sursum attenuatis dilutio-ribusque, longitudine pycnidiorum; sporulis elongato-fusoideis, guttulatis, rectis v. leniter curvulis, 16-23 × 2-4.

Hab. in foliis siccis Calamagrostidis Epigeios in regione Kuopioënsi Fenniæ (Lönnbohm).

## Species omnino dubiæ.

- 10. Vermicularia Pseudosphæria Tode Fungi Meckl. I, p. 31, t. VI, 6641 fig. 46 (1790).
- 11. Vermicularia pubescens Tode Fungi Meckl. I, p. 31, t. VI, f. 47 6642 (1790).
- **DOTHIORELLA** Sacc. Syll. III p. 235, X p. 229, XI p. 504, XIV p. 910, XVI p. 895, XVIII p. 288.
- Dothiorella aberrans Peck, Bull. Torr. Bot. Cl. XXXIV (1907) 6648
   p. 103. Pycnidiis cespitosis, paucis v. multis congregatis, raro solitariis, globosis v. subglobosis, erumpentibus, nigris; sporulis numerosis, late ellipsoideis v. subglobosis, e hyalino etate leniter coloratis, 5-8 × 4-5.

Hab. in ramis siccis Asiminæ trilobæ, Oberlin Ohio Amer. bor. (F. O. Grover). — A Dothiorella Asiminæ pycnidiis nigris et sporulis latioribus imprimis diversa.

2. **Dothiorella Celastri** Peck, Bull. Torr. Bot. Club, XXXVI (1909) 6644 pag. 337. — Pycnidiis cæspitosis, vulgo confertis, erumpentibus, inæqualibus, subcoriaceis, subastomis, atris, intus albidis; cæspitibus 0,5-1 mm. latis; sporulis late ellipsoideis v. subglobosis, hyalinis v. subhyalinis, 5-8 × 4-5.

Hab. in ramis emortuis Celastri scandentis, Riverside Illinois Amer. bor. (E. T. et S. A. HARPER).

3. Dothiorella Tiliæ Sace., Annal. Mycol. VIII, (1910) p. 344. — Stro-6645 matibus gregariis, elevato-pulvinatis, erumpentibus epidermide arrecta cinctis, fusco-nigricantibus 1-2 mm. diam., intus fuscis; pycnidiis in quoque stromate 6-10 globulosis, plus minus prominulis, non papillatis; sporulis oblongis, curvulis, utrinque rotundatis, 11-15 \times 4-4,2, hyalinis; sporophoris brevissimis, 4-6 \times 2, parum distinctis.

Hab. in ramis corticatis subemortuis Tiliæ americanæ, Lyndonville, New York, Amer. bor. (C. E. Fairman). — A Rabenhorstiæ et Dothiorellæ speciebus bene distincta. — Sporulæ eructatæ massulas albidas formant.

4. Dothiorella Caseariæ Speg., Mycet. Argent. V p. 359, in An. 6646 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; stromatibus tuberculiformibus, verruculosis, innato-erumpentibus epiphyllis atris, subcarbonaceis, 400-600 μ. diam.; loculis subimmersis subglobosis albo-farctis, astomis, 150-200 μ. diam.; sporulis ellipsoideis utrinque obtusissime rotundatis 28-32 × 14-18, primo sporophoro 15-20 × 5-8, e cylindraceo subconoideo concolore appendiculatis dein ecaudatis, levibus, hyalinis.

Hab. ad folia viva Caseariæ silvestris in silvis prope Puerto Leon, Misiones Amer. austr.

5. Dothiorella tubericola Speg., Myc. Argent. V, p. 359, in An. 6647 Mus. Nac. Buenos Aires XX (1910). — Stromatibus irregulariter lenticularibus primo tectis dein nudis, fusco-cinerescentibus, 2-10 mm. diam., superne convexulis, sordide cinereis, rugulosis, dense minuteque loculigeris; loculis 150-200 μ. diam., hyalino farctis; sporophoris rectis v. leniter flexuosis, 20-25 × 5-6, apice quandoque sporula ellipsoidea utrinque rotundata 34-35 × 18, nubilosofarcta coronatis, quandoque paraphyse geminatas simplices v. bifidas sustinentibus.

Hab. ad tubera emortua Corytholomæ cujusdam ad truncos arborum in silvis Misiones Reip. Argent. America austr.

6. Dothiorella Daniellæ Pat. et Har., Bull. Soc. Myc. Fr. XXIV (1908) 6648

pag. 15. — Erumpens; stromate transversim disposito, 5-10 mm. long., 1-2 mm. lato, ruguloso; pycnidiis immersis, ovatis, apice perforatis, subglobosis, intus albidis, 250-800  $\mu$ . circ. diam., farctis; sporulis numerosissimis, ovoideis, utrinque rotundatis, hyalinis, simplicibus, 16-20  $\approx$  10-12; sporulis linearibus suffultis.

Hab. in cortice Daniellæ sp., Casamance, Bignonia-Fogny (A. Chevalier).

7. Dothiorella divergens Peck, New York St. Mus. Bull. n. 139 (1909) 6649 p. 22. — Cæspitibus pycnidiorum 1-3 mm. latis, stromate nigro insidentibus, suborbicularibus v. ellipsoideis, erumpentibus, epidermide rupta circumdatis; peritheciis irregularibus, inæqualibus, submembranaceis, atris, intus pallidis; sporulis oblongis, obtusis, rectis v. leviter curvulis, aliquando uninucleatis, hyalinis, raro viridescentibus seu flavescentibus, 20-30 ≈ 8-10.

Hab. in ramis emortuis Piri Mali, Menandes Albany co. Amer. bor. — A Doth. Mali et D. pyrenophora sporulis latioribus diversa.

8. **Dothiorella Piri** Aderh. in Arb. Biol. Anstalt f. Land. u. Forst-6650 wirtschaft IV (1905) p. 462, fig. — 3. Stromatibus binis trinis aggregatis et pustulam discoideam epidermide tectam erumpentem formantibus; sporophoris subulatis rectis,  $10 \approx 2-3$ ; sporulis continuis, hyalinis, ellipticis v. ovatis, leniter attenuatis, guttulis 1 v. pluribus præditis,  $11-15 \approx 7-8^1/_2$ , in cirros sordide albidos in sicco ceraceos expulsis.

Hab. ad ramum Piri communis, Proskau Silesiæ.

9. Dothiorella Betulæ (Preuss) Saccardo, Not. Myc. VI, Ann. Myc. 6651 v. III (1905) p. 512 — Syll. fung. III, p. 236 — Sphæria conglobata Sanguinetti in Herb. Instituti bot. romani, nec Fr. — Stromatibus transverse erumpentibus, oblongo-lanceolatis, peridermio laciniato cinctis, 2 mm. long., vix 1 mm. lat., superficie, ob ostiola prominula, colliculosis, nigris; pycnidiis immersis, globoso-ovoideis, monostichis, 150 μ. diam., intus albis; sporulis oblongo-fusoideis, utrinque acutulis, rectis, 20 × 6, intus nubilosis, hyalinis; sporophoris bacillaribus, 16-22 × 1,5, hyalinis.

Hab. in cortice Betulæ albæ in Horto botanico romano (P. Sanguinetti). — Sphærocista Betulæ Preuss, etsi breviter descripta, eadem species mihi videtur.

Dothiorella Oxycedri Maire, Bull. Soc. Bot. Fr. LIV (1907) 6652
 p. CLXXXVIII. -- Conceptaculis botryose congestis, in stromate nigro insidentibus, atro-brunneis, epidermide lacerata cinctis, ostio-

lo epapillato pertusis, 120-150 p. diam.; sporulis numerosissimis minutis, hyalinis, levibus, oblongis v. cylindraceis, 2-3 × 1.

Hab. in galbulis putrescentibus Juniperi Oxycedri inter Terni et Sebdou Africa bor. — Ob sporulas minutas a ceteris speciebus præcipue dignositur.

11. Dothiorella Pirottiana Sace. et Trav. in Saccardo, Not. Myc., Ann. 6653 Myc. v. III (1905) p. 513. — D. pityophila Bres. et Sacc. in Malp., (1897) p. 310 (in Junipero), nec Sacc. et Penz. in Mich. et in Sacc. Syll. III, pag. 238 (in Pino). — Melanomma obtusum stat. pycn. Comes Reliq. micol. Notarisiane, no. 126 (1883). — Stromatibus dense sparsis, mox erumpentibus et subsuperficialibus, depressis, disciformibus, demum subcupuliformibus, basi leviter coarctatis, nigris, opacis, rugosis, ½-1 mm. diam., intus dilute olivaceis vel albicantibus; loculis in quoque stromate sat copiosis (12-16), irregularibus, sæpe angulosis, 100-200 p. diam., e stromatis superficie non v. parum emergentibus; sporophoris stipatis, breviusculis, 10-12 × 2-3, hyalinis; sporulis cylindraceis, utrinque attenuatis, rectiusculis, obscure biguttulatis, hyalinis (coacervatis dilutissime olivaceis) 7-10 × 2-2½.

Hab. ad ramulos corticatos Juniperi nanæ, Riva Valsesia Ital. bor. (Carestia in herb. de Notaris et Saccardo). — Species a D. Juniperi (Fr.) Sacc. plurimis notis distincta. A D. pityophila typica, cui affinis, mox distinguitur stromatibus minoribus, disciformibus, sæpe leviter cupulatis, basi plerumque nonnihil coarctatis; loculis multo minus prominentibus. Certe ad Melanomma obtusum minime pertinet; potius videtur status pycnidicus Discomycetis cujusdam.

12. Dothiorella pseudodiblasta Ferdin. et Winge, Videnssk. Meddel. 6654 fra den naturh. Foren. Kiobenhavn (1908) p. 144, tab. IV, fig. 4. — Stromatibus caulicolis, numerosis, 1-2 (raro 3) mm. long., 0.5-1 mm. lat. oblongis, pulvinatis, structura pseudoparenchymatica nee non sclerotioidea, coriaceis, circum fasciculos vasculares orientibus, epidermidem versus crescentibus, eamque postremo longitrorsum rumpentibus, pustulas brunneas formantibus; pycnidiis in summo stromate insidentibus, nunc semiimmersis, nunc basi modo insculptis et botryoideo-coacervatis, inter fasciculos fibrosos epidermicos seriatim ordinatis, 100-150 μ. diam., forma varia, subglobosis v. ellipsoideo-ovoideis, ostiolo subconice protracto instructis; sporulis oblongo-fusoideis, utrinque acutiuscule

rotundatis, plasmate constanter bipartito pseudodiblastis, sæpius vacuolatis, 14-16 × 3-3<sup>3</sup>/<sub>4</sub> hyalinis; sporophoris tenuibus curtis.

Hab. ad caules vivos Scleriæ sp. in insula St. Jan Indiæ occid. (F. Boergesen) — Species prima Dothiorellæ in planta monocotyledonea observata, matricem valde infestans.

13. Dothiorella parasitica Bubák, Ann. Mycol. VII. (1909) p. 61. 6655 — Pycnidiis in stromatibus vetustis Cytosporæ parasiticis, globoso-ovoideis ellipsoideis v. elongatis, quandoque irregularibus, nigris, 100-250 μ. cr. sæpe confluendo e latere compressis, contextu extus atro-brunneo intus pallidiori parenchymatico instructis; sporulis 2-3 × 1 bacillaribus, rectis v. curvulis hyalinis, coacervatis fumoso-chlorinis, guttulis binis polaribus oleosis præditis; sporophoris filiformibus, 10-15 μ. long. hyalinis.

Hab. in pycnidiis vetustis Cytosporæ sp. in cortice Piri Malh «Hoie Wark» prope Wien, Austria.

14. Dothiorella inversa (Fr.) v. Höhn. Sibzb. k Ak. d. Wiss. Wien 6656 CXV, Abt. 1 (1906) p. 28. Ita vocanda Sphæria inversa Fr. S. M. II p. 414. — Pycnidiis ternis v. paucis, globoso-ovoideis, nigris, apice leviter umbilicatis, satis firmis sed madore molliusculis, cæspitulos erumpentes formantibus; sporulis breviter baculiformibus, rectis, 2-4 × 1, hyalinis, sporophoris ramulosis, fasciculatis, 30-50 μ. longis suffultis.

Hab. in ramis Alni incanæ etc. in Suecia, Britannia, Germania, socia Tympanide alnea, cujus est pycnidium.

PLACOSPHÆRIA Sacc. — Syll. III p. 244, X p. 234, XI p. 506, XIV p. 911, XVI p. 898, XVIII p. 291. (\*)

1. Placosphæria Tiliæ Bubák, Beitr. Pilzfl. Ung. in Növénytani 6657 Közlemények (1907) fasc. 4, Extr. p. 30. — Maculis utrinque visibilibus rotundato-sinuatis v. subellipticis, brunneis, medio arescendo flavo-coriaceis, margine ex obscure brunneo fere nigro 3-6 mm. lato; pycnidiis epiphyllis, subepidermicis, depressis sæpe subtrigonis, 100-160 μ latis, unilocularibus v. indistincte plurilocularibus, contextu parenchymatico obscure brunneo, ostiolo lato rotundo; sporulis elongatis v. fusoideis, 4-7 (raro usque ad 9) × 2-2,5, rectis v. quandoque curvulis v. inæquilateris, hyalinis, in massa

<sup>(\*)</sup> Placosphæria Pampaninii Bacc. in N. Giorn. Bot. ital. nuova ser. XI (1904) p. 420, t. IV, f. 4-5 est Strigula elegans (Fèe) Müll. Arg. (lichen).

roseolis; sporophoris e conoideo subpiriformibus, 5-10  $\mu$ . long., hyalinis.

Hab. in foliis vivis Tiliæ parvifoliæ, Csernatal, prope Herculesfürdö Hungariæ. — Habitus *Phyllostictæ* ob stroma sæpe uniloculare.

2. Placosphæria pustuliformis R. Maire ad interim, Ann. Mycol. VI 6658 (1908) p. 151, fig. 7. — Amphigena; stromatibus orbicularibus, 0,5-1 mm. diam., in maculis flavescentibus solitariis vel gregariis, sæpius totam folii crassitudinem occupantibus, paucilocularibus, ad ostiola tantum nigris; sporophoris cylindraceis, simplicibus, circ. 20-25 × 3 μ.; sporulis fusiformibus, hyalinis, levibus, 1-pluriguttulatis, 30-42 × 5-6, utrinque obtusis vel acutatis.

Hab. in foliis Lauraceæ cujusdam (Ocoteæ?) prope San Paulo Brasiliæ.

3. Placosphæria? Tiglii P. Henn., Hedwigia XLVII (1908) p. 263. 6659

— Maculis amphidymis rotundatis, bullatis, fuscis, stromatibus fuscis rotundatis, rugulosis, sporulis bacillaribus, hyalinis, 4-5 × 0,5.

Hab. in foliis Crotonis Tiglii, in ins. Balabac Philippin. (MANGUBAT).

4. Placosphæria Merrilli P. Henn., Hedwigia XLVII (1908), p. 263. 6660 — Maculis rotundatis v. effusis, flavo-fuscidulis; stromatibus amphidymis, gregariis sæpe confluentibus angulato-rotundatis, planiusculis, atris, loculis immersis; sporulis bacillaribus, hyalinis 5-6 × 0,5.

Hab. in foliis Derridis in insula Palmas ex Philippin. (MERRILL).

5. Placosphæria Derridis P. Henn., in Fl. du Bas- et Moy. Congo, 6661 Ann. Mus. du Congo, v. II, fasc. II (1907) p. 101. — Maculis rotundatis, amphigenis, pallidis, exaridis, margine brunneo cinctis; stromatibus hypophyllis sparsis v. aggregatis, rotundatis, planis, atris, 150-180 μ. cr. loculis immersis rotundatis; sporulis ellipsoideis v. ovoideis, 2-guttulatis, hyalinis, 10-12 × 4-4,5.

Hab. in foliis Leguminosæ arboreæ verisimiliter Derridis sp., Sonso. Congo (Vanderyst).

6. Placosphæria Missionum Speg., Myc. Argent. V p. 325, in An. 6662 Mus. Nac. Buenos Aires XX (1910). — Stromatibus innatis suborbicularibus, 1-2 mm. diam., tenuibus planiusculis, utrinque manifestis, determinatis, atris, centro minute bullosis; loculis innatis lenticularibus irregulariter dehiscentibus albo-farctis; sporulis an-

guste ellipsoideis v. lenissime clavulatis cum sporophoro deciduis  $16-18 \times 6$ , per retantem ecaudatis.

Hab. ad folia viva Lauraceæ cujusdam, Puerto Leon Misiones Argentina Amer. austr.

7. Placosphæria Epilobii Bres. apud Jaap, Ann. Myc. III (1905) 6668 p. 400. — Sporulis ovoideo-elongatis, 6-9 × 3-4, biguttulatis.

Hab. in caulibus emortuis putrescentibus E pilobii ang ustifolii prope Warnemünde Mecklenburg Germania.

8. Placosphæria Rhododendri P. Henn. Engl. Jahrb. XXXVII (1905) 6664 p. 163. — Stromatibus epiphyllis, sparsis, innato-superficialibus, rotundatis, atris, verrucoso-rugulosis, usque ad 5 mm. diam.; loculis immersis; sporophoris filiformibus, hyalinis, continuis, 2-2,5 × 1-1,5.

Hab. in foliis vivis Rhododendri, Mt. Juare prov. Tosa Japoniae (Yoshinaga).

9. Placosphæria Valerianæ-montanæ Magn. in Vestergr. Microm. sel. 6665 n. 674 (1903) et Pilze Tirols, p. 586 (1905) (sine diagnosi).

Hab. in foliis Valerianæ montanæ in Tiroli austriaco et pr. San Martino di Castrozza Agr. Tridentini (Magnus). — Ab affini Pl. rhytismoide Allesch. dignoscitur imprimis stromatibus magis oblongatis.

10. Placosphæria Viburni P. Henn. Engl. Jahrb. XXXVII (1905) p. 6666 163. — Stromatibus innato-superficialibus epiphyllis, explanatis, rotundatis, atris, subcarbonaceis, usque ad 1,5 cm. diam., verrucoso-rugulosis, loculis immersis, globulosis; sporophoris filiformibus, hyalinis, 15-30 × 1,5-2; sporulis subfalcatis, acutiusculis, hyalinis, continuis, 20-30 × 2-3.

Hab. in foliis vivis Viburni dilatati, Mt. Pakao prov. Musashi Japoniæ (Miyake).

11. Placosphæria Ulmi P. Henn. Engl. Jahrb. XXXVII (1905) p. 6667 163. — Maculis flavido-fuscidulis, rotundato-angulatis v. effusis; stromatibus epiphyllis, innato-superficialibus, rotundato-angulatis v. radiantibus, atro-crustaceis, verrucoso-rugulosis, 2-5 mm. diam. sæpe confluentibus; sporophoris hyalinis breve filiformibus; sporulis oblonge ellipsoideis v. fusoideis, hyalinis, 3,5-5 v 1-1,5.

Hab. in foliis Ulmi parvifoliæ, Tokyo, prov. Tosa, Wakayama Japonia (Nambu Yoshinaga, Nakanishiki). — Verisimiliter status pyenidicus *Phyllachoræ Ulmi*.

12. Placosphæria Junci Bubák, Ann. Mycol. IV (1906) p. 113, cum 6668 icon. — Stromatibus sparsis, e rotundato elongatis, 1/4-1 mm. long.

 $^{1}/_{4}$ – $^{1}/_{2}$  mm. latis, immersis, epidermide teetis, nigris, loculis numerosis indistinctis præditis, convexis, contextu parenchymatico, brunneo-fuligineo; sporulis globosis v. globoso-ovoideis, 2-2,5  $\mu$ . cr. hyalinis; sporophoris rectis v. curvulis, basim versus subincrassatis, quandoque obclavatis, 15-25  $\mu$ . long. infra 2,4 circ. cr., hyalinis.

Hab. parasitice in caulibus bracteisque Junci filiformis inter Borkovic et Veseli Bohemia.

13. Placosphæria Isachnes P. Henn., Engl. Jahrb. XXXVII (1905) 6669 p. 163. — Stromatibus innato-superficialibus, sparsis v. gregariis, rotundatis v. oblongis, angulatis, interdum confluentibus, atris, usque ad 1 mm. longis, 0,5 mm. latis; loculis immersis, oblonge rotundatis; sporulis fusoideis, rectis v. curvulis, continuis, 20-25 × 3,5-4, hyalinis.

Hab. in foliis Isachnes australis, Wakayama Japonies (NA-KANISHIKI). — A Pl. graminis sporulis angustioribus diversa.

14. Placosphæria Massariæ Sacc., Ann. Myc. III (1905) p. 506. — 6670 Stomatibus pulvinatis, vix 1 mm. latis, nigris, subcoriaceis, intus inæqualiter plurilocularibus, loculis parcioribus majoribus et forma irregularibus; sporulis oblongis, curvulis, utrinque obtusulis, hyalinis, 12-15 × 4-5; sporophoris fasciculatis acicularibus, 25 × 1,5-2, hyalinis.

Hab. in ostiolis Massariæ Curreyi ad ramos Tiliæ in viridario publico, Parma Ital.bor. — Species eximia et vere peculiaris ob parasitismum in Pyrenomycetis. Status ascophorus est Plowrightia Massariæ (Pass.) Sacc.

15. Placosphæria Beckeræ P. Henn., in Fl. du Bas- et Moy. Congo, 6671 Ann. Mus. du Congo v. II, fasc. II, (1907) p. 101. — Maculis oblongis confluentibus, flavo-fuscis; stromatibus hypophyllis oblongo-striiformibus confluentibusque, atris plurilocularibus; sporulis cylindraceis v. oblongis, obtusis, hyalinis, 2-2,5 ≈ 0,5.

Hab. in foliis Beckeræ sp., Kisantu Congo Africa.

Placosphæria punctiformis (Fuck.) C. Mass. et Sacc., Annales 6672
 Myc. VI (1908) p. 555. — Ita vocanda Phyllachora punctiformis Fuck. — Syll. II, p. 615.

METHYSTEROSTOMELLA Speg., Myc. Argent. V, p. 396, in Ann. Mus. Nac. Buenos Aires XX (1910) (Etym. metà post et Hysterostomella, cujus est pycnidium) — Stromata scutato-dimidiata, atra, centro ostiolis rimosis undique versis dehiscentia; sporulæ

subellipsoideæ continuæ hyalinæ. - Est Hysterostomellæ status pycnidicus.

1. Methysterostomella argentinensis Speg., l. c. p. 396. — Maculis 6673 nullis; stromatibus sepius epiphyllis, tenuissimis, orbicularibus, 1-3 mm. diam., arcte matrici adnatis, centro subpapillulosis minute denseque rimulosis, ambitu levibus integris, margine vix repandulis, subopace parenchymaticis; sporulis ovatis v. ellipsoideis sæpius grosse biguttulatis, hyalinis, 5-7 × 4-5, substantia mucosa immersis.

Hab. ad folia viva Laurace a cujusdam in silvis prope Puerto Leon Misiones Argentina, Amer. austr.

- CYCLODOMUS v. Höhn. Fragm. z. Mykol, IX (1909) p. 67 (Etym. cyclos circulus et doma domus seu loculus). — Stromata coriaceo-carbonacea, parva, rotundata, epidermide innata, disco tantum prominentia, unilocularia, loculo anuliformi circum columellam centralem disposito, disco erumpenti aperta; sporophora brevia monospora; sporulæ cylindraceæ, uniloculares, hyalinæ; contextu parenchymatico.
- 1. Cyclodomus Umbellulariæ v. Höhn. l. c. p. 68 Stromatibus 6674 præcipue epiphyllis, sine maculis, dense gregariis, nigris, nitidulis siccis rugulosis, epidermide innatis, plerumque subhemisphæricodiscoideis, infra applanatis, 100-250 µ, diam., 90-100 µ, cr., disco 60  $\mu$ . circ. lato; loculo 65-70  $\times$  48, columella 50-80  $\mu$ . cr. sporulis  $14-24 \times 2-3$ .

Hab. in foliis precipue emortuis Umbellularia californicæ (Lauraceæ) prope Clairmont California (C. F. BAKER).

- BOTHRODISCUS Shear, Bull. Torr. Bot. Cl. XXXIV (1907) p. 312. (Etym. bothros cavitas et discus). — Stroma nigrum, discoideum, coriaceum v. subcorneum, substipitatum, primo membrana coriacea tectum, pluriloculare; sporule elongate, hyalinæ v. pallide citrine, continue. — Genus Fuckeliæ affine sed stromate tunicato differt.
- 1. Bothrodiscus pinicola Shear I. c. p. 313. Stromate obscuro, ob- 6675 conico, substipitato, disco nigro, areolato, 0,5-1 mm. diam., primum membrana (peridio?) coriacea tenui tecto, dein dilacerato; pycnidiis regularibus, plurimis, 100 × 75; sporulis hyalinis v. in massa pallide viridi-flavidis, clavato-cylindraceis, plus v. minus curvulis, multiguttulatis, continuis, 32-42 > 5-6.

Hab. in ramis Pini virginianæ, Takoma Park Amer. bor.

- EPHELIOPSIS P. Henn., Hedwigia XLVII (1908) p. 270. (Etym. Ephelis, quam in memoriam revocat.). Stromata crustacea, atra, effusa; pycnidia subcarbonacea atra, subconoidea, pertusa, stromate inserta; sporulæ cylindraceæ curvulæ, continuæ, hyalinofuscidulæ.
- 1. Epheliopsis Turneræ P. Henn., l. c. p. 270. Stromatibus longe 6676 effusis ramulos circumdantibus, atro-crustaceis, rugulosis, rimosis; pycnidiis gregariis v. sparsis, subcarbonaceis v. coriaceis, atris, pulvinatis v. subconoideis, rugulosis, 200 µ. c. cr., perforatis; sporulis, cylindraceis, utrinque obtusis, curvulis, hyalino-fuscidulis 5-11 × 2-3.

Hab. in ramulis vivis Piriquetæ Duarteanæ, Turneræ surinamensis et T. leptospermæ, Remanso, Bahia, Brasilia (ULE).

- ASCOCHYTOPSIS P. Henn., Engl. Jahrb. XXXVIII (1905) p. 117. (Etym. Ascochyta, cujus est analogum genus). Stromata superficialia. subcarbonacea, atra, 1-paucilocularia; sporulæ falcatæ, pluriguttulatæ, hyalinæ. Generibus Ascochytæ, Septorellæ, Septodothideopsidi et Septosporiellæ affinis, sed videtur satis distincta.
- Ascochytopsis Vignæ P. Henn., Engl. Jahrb. XXXVIII (1905) p. 6677
   117. Maculis fuscidulis v. obsoletis; stromatibus epiphyllis superficialibus, gregariis, sæpe nervos sequentibus, punctiformibus, subglobosis, subcarbonaceis, rugulosis, atris, 1-paucilocularibus, c. 170-180 μ. diam.; sporulis falcatis, utrinque acutis, pluriguttulatis, hyalinis, 12-22 × 2,5-3.

Hab. in foliis Vignæ (? vexillatæ), Usambara orient. Afr. (ZIMMERMANN).

FUSICOCCUM Corda. — Syll. III p. 247, X p. 329, XI p. 507, XIV p. 913, XVI p. 899, XVIII p. 293.

1. Fusicoccum Pseudacaciæ Ranojevic et Bubák, Ann. Mycol. VIII, 6678 (1910) p. 385, fig. 24-26. — Stromatibus crebre distributis, in periderma immersis et erumpentibus, rotundatis, applanatis, elongatis, prominentibus, nigris, usque ad 1,25 mm. diam., plerumque confluentibus; pycnidiis in stromate immersis, supra liberis, globoso-applanatis, rotundatis, plurilocularibus, ostiolo papilliformi apertis, usque ad 500 μ. diam., contextu flavo-brunneo crasso præditis; sporulis unilocularibus elongatis, ovoideis, piriformibus, ellipsoideis, utrinque rotundatis, rectis, inæquilateris, leniter con-

tortis, contentu granuloso, plerumque 1-2-guttulatis, 23-32 vel usque ad  $38 \times 11,5-17$ , hyalinis; sporophoris cylindraceis, subfusoideis, 1-3-cellularibus, 9-24  $\mu$ . long.

Hab. in ramis siccis Robiniae Pseudacaciæ prope Belgrado, Serbia.

2. Fusicoccum microsporum Potebnia, Myc. Stud. in Ann. Myc. V, 6679 (1907) p. 15, Trav. Soc. Nat. Univ. Kharkov XXXXIII, (1907).
— Stromate ut in Fus. complanato; sporulis in loculis dense confertis, 5-7 × 2,5, hyalinis.

Hab. in ramis siccis Piri Mali prope Kursk. — Fus. complanato proximum; an ejus status immaturus?

- Fusicoccum Pruni Potebnia, Myc. St., in Ann. Myc. V (1907) 6680
   p. 15, fig. 29 et Trav. Soc. Nat. Univ. Kharhov XXXXIII (1907).
  - Stromate nigro usque ad 1 mm. cr.; sporulis 23-29  $\approx$  5-9, irregularibus, variabilibus, hyalinis, grosse nucleatis, sporophoris 20-25  $\mu$ . long.

Hab. in ramis siccis Pruni domesticæ pr. Kursk Rossiæ.

4. Fusicoccum Amygdali Delacroix Bull. trim. Soc. Myc. de France 6681 vol. XXI (1905) p. 280, fig. IV. — Maculis albidis, irregularibus, mox depressis, sæpius longitudinaliter sed interdum pariter transverse rimosis; stromate variabili; pycnidiis subepidermicis et epidermide rupta sæpe superficialibus, uni- vel sæpius plurilocellatis, dimensione variantibus, transverse compressis latioribusque, usque ad 275 μ. lat. et 50 μ. alt. poro unico latiore, irregulari; sporulis irregularibus, ovatis v. subpiriformibus, interdum ad basim acutatis, hyalinis, protoplasmate granulis guttulisve carente, 5-7,25 ≥ 2,5-3; sporophoris brevioribus, 5 μ. cir. long. acieularibus.

Hab. in ramis adhuc vivis Amygdali communis, prope Berre Bouches-du-Rhône Gallia.

5. Fusicoccum viticola Reddik, Cornell Univ. Agric. Exp. Sta. Bull. 6682 263, (1909) p. 323 c. icon. (Diagnosis desideratur).

Hab. in ramis Vitis, cui necrosim affert, in America bor.

6. Fusicoccum Macarangæ v. Höhnel Fragm. z. Mykol., Sitzb. K. 6683 Ak. d. Wiss. Wien. Bd. CXVI Abt. I (1907) p. 144. — Stromatibus erumpenti-superficialibus, nigris, supra rugulosis, depressis, 400-500 μ. alt. <sup>4</sup>/<sub>4</sub>-1 mm. latis, subglobosis v. elongatis, quandoque irregulariter linearibus et usque ad 3. mm. long.; contextu extus carbonaceo, intus carnoso e cellulis 10-16 μ. cr. tenuiter tunicatis constituto; habitu dothideaceo, loculis numerosis, plerumque stratum simplicem efformantibus, elongato-ovoideis, parietibus

tenuibus indefinitis inter se divisis, 60-100  $\mu$ . latis; sporulis hyalinis, rotundato-ovoideis, erasse tunicatis, unilocularibus  $10-22 \times 10-14$ , contentu granuloso; sporophoris simplicibus hyalinis,  $12-14 \times 2-3$ .

Hab. in cortice Macarangae Reineckei ex Euphorbiaceis, Upolu prope Apia in Ins. Samoa (Rechinger).

7. Fusicoccum Kesslerianum Rick Ann. Mycol. VI (1908) p. 107. — 6684
Stromate nigro 2-3 mm. lato, erumpente, coacervato, parasitico in pustulis hemisphaericis matricis; pycnidiis 2-4 mm. latis uni vel plurilocularibus, polystiche ligno immersis; sporulis ellipsoideis v. subirregularibus, hyalinis, continuis, 20-30 × 13, sporophoris suffultis.

Hab. in ramis Compositæ arborescentis intumescentiam producens et in formam candelabri contrahens. Rami infecti resinam abundantissime segregant, pr. Novam Petropolin Brasiliæ.

8. Fusicoccum Elasticæ Koord., Bot. Untersuch. Java (1907) p. 208 6685 f. 27. — Stromatibus pulvinatis, sparsis v. laxe gregariis, subcutaneis vix erumpentibus, atris, intus plurilocellatis, pallidioribus; sporulis fusoideis, utrinque obtusis v. rotundatis, continuis, hyalinis, rectis v. subrectis, 25-35 × 5-6; sporophoris cylindraceis, hyalinis 7-12 μ. longis; paraphysibus destitutis.

Hab. in cortice Fici elasticæ prope Loano prov. Kedu Java, majo 1906 (Koorders).

9. Fusicoccum perniciosum Briosi et Farneti, Atti R. Ist. bot. Pavia 6686 ser. II, v. XIII (1909), vol. XIV, pag. 50; Riv. Pat. veg. III. (1911) p. 341. — Stromatibus sparsis, majusculis, innato-erumpentibus, depresso-pulvinatis, verruculosis, fuligineis, plurilocularibus; sporulis oblongo-fusoideis, hyalinis, continuis, utrinque obtusiusculis, intus granuloso-multiguttulatis, 56-66 × 11-13; sporophoris acicularibus, dimidio brevioribus.

Hab. in cortice Castaneæ parasiticum, morbum «Moria dei Castagni» vel «Male dell'Inchiostro» test. auctoribus, provocans in Etruria, Liguria, Pedemontio. — Socia sunt: Coryneum perniciosum et Melanconis perniciosa.

10. Fusicoccum betulinum Laubert, Arb. K. biol. Anst. f. Land- u. 6687 Forstwirtsch. V (1906) p. 208, fig. 3. — Stromate pulvinato 0,4-0,8 mm. lato 0,3-04 mm. alto, e hyalino, griseo-viridi, subepidermico-erumpenti, primum grosse et depresse uniloculari dein biloculari; sporophoris filiformibus, hyalinis apice clavulatis, 20-30 × 0,5-1,5; sporulis unilocularibus, elongatis, hyalinis uni- v. biguttulatis, 7-11 × 2,5-3,5.

Hab. in ramo corticato languido Betulæ, Kreis Jerichow, prov. Saxonia Germaniæ. — Verisimiliter pathogenum et morbum dictum «Einschnürungskrankheit» efficiens.

11. Fusicoccum operculatum Bubák, Ann. Mycol. IV (1906) p. 114. 6688

— Stromate epiphyllo, depresse subconoideo, nigro, pluriloculari, pustuliformi erumpenti, contextu brunneo-olivaceo, 150-200 μ. cr.; sporulis ovoideis v. ellipsoideis 6-7,5 μ. long. apice rotundato-angustatis, pluriguttulatis; sporophoris brevibus, crassis, hyalinis.

Hab in foliis emortuis Abietis pectinatæ prope Tábor

Bohemia.

12. Fusicoccum Mac-Alpini Sacc. Annal Mycol. VIII (1910) p. 344. 6689

— Stromatibus minutis phyllogenis, hypophyllis, laxe gregariis, brunneo-rufescentibus in areis leviter dealbatis nascentibus, globoso-depressis, subcutaneo-erumpentibus, 180-230  $\mu$ . diam., hyphulis filiformibus, hyalinis, variis, 1  $\mu$ . cr. einetis, intus minute plurilocellatis, locellis subrotundis; sporulis oblongis, curvulis, apice rotundatis, basi vix acutatis, 10-12  $\approx$  3, hyalinis, coacervatis chlorinis; sporophoris paliformibus, 10  $\approx$  3, stipatis.

Hab. in foliis adhuc vivis Quercus coccine e in Australia merid. (Mac Alpine). — Habitu folii-maculicola et minutie a typo generis recedit et cum Fusicocco coronato Karst. genus distinctum (Leptococcum) constituere posset.

CYTOSPORELLA Sacc. — Syll. III p. 251, X p. 242, XI p. 507, XIV p. 913, XVI p. 900, XVIII p. 294.

1. Cytosporella Tiliæ Bubák, Ann. Mycol. IV (1906) p. 115. — 6690 Pycnidiis irregularibus, nigris, epidermide lacerata cinctis, 1-8-locularibus, levibus nitidulis; loculis singulis 90-250 μ. cr., plerumque globosis, sæpe confluentibus, contextu crasso, brunneo, parenchymatico; sporulis minutis, bacilliformibus, 3-4 × 1,5, rectis, apice rotundatis, minute biguttulatis, hyalinis; sporophoris cylindraceis, rectis, 6-10 μ. long., tenuibus, numerosis.

Hab. in ramis emortuis Tiliæ parvifoliæ prope Tábor Bohemia. — Socia Rabenhorstia Tiliæ.

2. Cytosporella Cinnamomi Turconi in Atti R. Ist. bot. Pavia, (1905) 6691 XI p. 314-318, tab. XXII fig. 1-3. — Maculis arescendo dealbatis, fusco-marginatis, rotundis v. irregularibus, sinuosis, marginalibus, 5-15 mm. latis; stromatibus innatis, demum innato-erumpentibus, intus inæqualiter plurilocularibus, loculis globosis, 100-200 μ. diam.; sporulis ovoideo-ellipsoideis, guttulatis, hyalinis,

4-6,5  $\times$  2-2,5; sporophoris cylindraceis, dense stipatis, 15-17  $\times$  1,5-2, hyalinis suffultis.

Hab. in foliis Cinnamomi Burmanni culti in horto botanico, Pavia Italiæ borealis.

- 3. Cytosporella laurea Roll., Bull. Soc. Myc. Fr. XXI, (1905) pag. 6692 31. Pustulis irregularibus, subseriatis, nigris, corticolis, epidermidem inflatam rima longitudinali plerumque lacerantibus; stromatibus griseis, numerosos loculos stipatos, ovoideos, minimos foventibus; sporulis copiosissimis, ellipsoideis, 3-4 × 1-2, hyalinis, sporophoris longissimis, usque ad 30 × 2, totam superficiem internam pycnidiorum vestientibus.
- Hab. in ramis Lauri nobilis, San Salles, in Ins. Balearibus.
  4. Cytosporella Kermesi Speg., Myc. Argent., V, p. 357, in Anal. 6698 Mus. Nac. Buenos Aires XX (1910). Stromatibus hinc inde laxe gregariis ambitu difformibus 2-5 mm. diam., atris, carbonaceis per corticem erumpentibus monostichis, plurilocularibus; sporulis ellipsoideis crasse tunicatis nubilosis, 30 ≥ 18, sporophoris ovoideis (10-15 ≥ 10), apice rostro longiusculo simplici v. sæpius bifido (5-10 ≥ 1,5-2) monosporo donatis.

Hab. ad ramos dejectos putrescentes Tecomæ? cujusdam in silvis pr. Formosa, Chaco, in Rep. Argent. Amer. aust. (E. Kermes).

5. Cytosporella damnosa Petri, Ann. Myc. V. (1907) p. 329, tab. 6694 VIII. — Stromatibus irregularibus, parce evolutis, diu immersis nigris, minutissimis, 0,3-0,4 mm. diam., irregulariter locellatis; loculis distinctis, plus minus stipatis, ovatis vel subangulatis, 50-70 × 75-125; sporulis globosis vel ovatis, initio hyalinis, demum pallide fuligineis, 1,5-2,5 diam. vel 2,5 × 1,5-2; sporophoris pallide fuligineis, cylindraceis, apice truncatis, rarius furcatis, 6,5-9 μ. longis.

Hab. in cortice ramulorum Pini prope Gaeta Ital. austr. — A Cytosporella alpina stromatibus immersis, sporulis majoribus omnino distincta.

CYTOSPORA Ehrenb. — Syll. III p. 252, X p. 243, XI p. 508, XIV p. 914, XVI p. 902, XVIII p. 297.

1. Cytospora Cydoniæ Schulzer. v. Mügg. in Verh. zool-bot. Ges. 6695 Wien, (1871) p. 1239, t. XIII, fig. 19. — Stromatibus tenuibus pustulatis, subcutaneis, nunc minutis, nunc latius extensis irreguleriter multilocellatis, infra luteolis, extus nigricantibus; nucleo subglauco; sporophoris dense stipatis, bacillaribus, subinde fur-

catis, sporulâ multo longioribus; sporulis breviter tereti-oblongis, rectiusculis copiosissimis, 6  $\mu$ . long.

Hab. in ramis corticatis emortuis Cydoniæ vulgaris in Hungaria.

2. Cytospora Tulipiferæ Diedicke, Ann. Mycol IV (1906) p. 414. — 6696 Stromatibus in cortice pustulatim elavato insidentibus, conoideis, plurilocularibus, 1 mm. circ. diam. et ultra; loculis infra circa nucleum centralem nigrum dispositis et versus ostiolum confluentibus; sporophoris pluries furcatis v. subverticillatis, 20-26 × 1-2; sporulis curvulis, 5-6 × 1.

Hab. in ramis emortuis Liriodendri Tulipiferæ prope Halle, Germania (A. Schroeter).

3. Cytospora Actinidiæ Syd., Mycoth. germ. n. 519, Ann. Mycol. IV 6697 (1906) p. 485. — Stromatibus sparsis, minutis, epidermide elevata arcte tectis et tantum disco minutissimo tandem erumpentibus, atris, plurilocularibus, intus griseo-olivaceis; sporulis allantoideis, rectis vel curvulis, hyalinis, 4-5 × 1-11/o.

Hab. in ramis Actinidiæ argutæ, Rixdorf pr. Berolinum (Sydow).

Cytospora Pteleæ Hollós, Növényt. Közlemén. VI (1907) Extr. p. 6698
 Stromatibus conico-truncatis, disco ex albido cinereo et papilla minutissima, atra, centrali, pertusa instructis, multilocularibus; sporulis cylindraceis, curvulis, hyalinis, 5-6 × 1-1,5; sporophoris filiformibus, tenuissimis, simplicibus, 14-16 μ. longis.

Hab. in ramis siccis Pteleæ trifoliatæ, Nagy-Körös Hungariæ.

5. Cytospora candida Speg., Myc. Argent. V, p. 357, cum icon., in 6699 An. Mus. Nac. Buenos Aires XX (1910). — Stromatibus per peridermium transverse fissum vix protrundentibus, 1-2 mm. long. 0,3-0,5 mm. lat. superne applanatulis margine obtusulis pruinuloso-puberulis, ostiolis impressis fuscidulis notatis, subcarnosulis, loculis subglobosis ostiolatis 100-150 μ. diam.; sporophoris bacillaribus, 15 × 1, constipatis, monosporis; sporulis cylindraceis utrinque rotundatis, 4-6 × 1, leniter curvulis, eguttulatis hyalinis.

Hab. ad corticem truncorum ramorumque emortuorum Persicæ vulgaris in hortis, Escobar prope Buenos Aires Riep. Argentinæ. Amer. austr.

6. Cytospora eutypelloides Sacc., Ann. Myc. VIII (1909) p. 344. 6700 — Stromatibus laxe gregariis, subcutaneo-erumpentibus, prominulis, eutypelliformibus, atris, pulvinatis, 1-2 mm. latis, 20-30-

locularibus, loculis globoso-angulosis, variis, intus atro-griseolis, ostiolis prominulis, obtusulis, confertis, integris, nitidulis, discum planiusculum formantibus; sporulis minimis, allantoideis,  $4 \approx 0.5$  hyalinis; sporophoris bacillaribus, simplicibus v. furcatis,  $11-14 \approx 1.5-2$ , hyalinis.

Hab. in ramis corticatis emortuis Pruni Armeniaca in hortis cultæ, Lyndonville, N. Y., Amer bor., (C. E. FAIRMAN). — Habitus Eutypellæ, hinc diversa a Cyt. rubescente. Prob. Eutypellæ speciei st. pycnidicus.

7. Cytospora Beaufortiæ Da Camara, Bol. Soc. Broteriana XXV, 6701 (1910) Extr. p. 15. — Epiphylla; stromatibus innato-erumpentibus, 3-4-loculatis; loculis convergentibus, compressis, subconoideis, nucleo pallide fuligineo, ostiolo minuto; sporulis allantoideis, hyalinis, continuis, utrinque rotundatis, biguttulatis, 5-6 × 2; sporophoris subcylindraceis, hyalinis, plus minusve rectis, simplicibus, usque ad 12 μ. long.

Hab. in foliis Beaufortiæ sparsæ, in horto botanico Coimbra Lusitaniæ (A. Moller).

8. Cytospora Seselis Moesz, Gomb. Budap. I, (1909) p. 20 (Bot. 6702 Közlem.) — Stromatibus laxe gregariis, depressis, 1 mm. c. long., 0,5 mm. latis, erumpentibus disco nigro, cinereo, plurilocularibus, loculis irregulariter dispositis; sporulis allantoideis, 6-7 × 1,5, hyalinis; sporophoris ramosis, 22 μ. long.

Hab. in caulibus siccis Seselis glauci prope Budaspet Hungariæ.

9. Cytospora Peylii Rabenhorst in Peyl, Lotos VII, (1857) p. 28, 6708 fig. 6. — Stromatibus subcutaneis, gregariis, subinde confluentibus, molliusculis, nigricantibus, conicis, dein vix erumpentibus, intus irregulariter 1-pluriloculatis pallidioribus; sporulis allantoideis, curvulis, in cirros filiformes, tortuosos, flavidos exeuntibus.

Hab. in cortice languido Lagenariæ vulgaris, Kacin Bohemiæ — An potrius Gloeosporii species?

- 10. Cytospora Dahliæ Peyl, Lotos VII, (1857) p. 67, t. II, fig. 11. 6704 Stromatibus laxe gregariis, subcutaneis, conicis, prominulis, nigricantibus, intus inæqualiter pluriloculatis; loculis quinis v. pluribus albidis, sæpe angulosis; sporulis anguste fusoideis, curvatis, utrinque acutissimis, hyalinis, in cirros filiformes pallide flavos, varie curvatos exeuntibus.
  - Hab. in caulibus Dahliæ sp. in calidario cultæ, hieme, Kacin Bohemiæ (Peyl).

11. Cytospora Sambuci Diedicke, Ann. Mycol IV, (1906) p. 414. — 6705 Stromatibus gregariis in maculis dealbatis elongatis insidentibus, depressis, ore late conoideo prominentibus, usque ad 1 mm. diam.; loculis in parte inferiori circa nucleum centralem nigrum insidentibus; sporophoris filiformibus, simplicibus, usque ad 25  $\mu$ . long., sporulis botuliformibus, 5-6,5 × 1,5-2.

Hab. in ramis emortuis Sambuci nigræ, Delitzsch Thuringia.

12. Cytospora Smithiæ Sacc. et Trott. - Cytospora Sambuci A. L. 6706
Smith., Trans. Brit. Mycol. Soc. III (1910) p. 222, non Diedicke.
— Stromatibus minutis immersis basi planis in ostiolum conicum singulum sursum convergentibus, 1-plurilocularibus, parietibus loculorum sporophoris 25 μ. long. simplicibus tenuibus dense tectis; sporulis copiosis, minutis, hyalinis, continuis, cylindricis, 5 × 1.

Hab. in cortice ramorum Sambuci nigræ, tumores minutos rotundos atros generans, Derbishire, Britaniæ. — An diversa a præcedente?

13. Cytospora exigua Saccardo, Not. Myc. VI in Ann. Mycol. III 6707 (1905) p. 513. — Amphigena, pusilla; stromatibus subglobosis, immersis, subunilocularibus, 150  $\mu$ . diam., disco punctiformi initio albido, dein nigricanti, epidermide arete cincto; sporulis allantoideis, minutis, curvulis, hyalinis, 4-5 × 1; sporophoris fasciculatis bacillaribus, 30-40 × 1, simplicibus v. arrecto-furcatis, hyalinis.

Hab. in foliis languidis Oleæ europææ cultæ, Montello (Treviso) Ital. bor. — A ceteris speciebus oleicolis satis diversa.

14. Cytospora Syringæ Sacc. — Syll. III, p. 272 — var. brevipes Po 6708 tebnia, Myc. Stud., Ann. Myc. v. V, (1907) p. 15, Trav. Soc. Nat. Univ. Kharkov XXXXIII (1907). — A typo differt sporophoris brevioribus, 10 μ. long., et loculis radiatim dispositis.

Hab. in ramis siccis Syringæ vulgaris pr. Kharkov Rossiæ.
15. Cytospora Forsythiæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 6709
p. 342. — Stromatibus epidermide fissa tectis, globosis, nigris, magnis, pluricellularibus; sporulis cylindraceis, curvulis, allantoideis, continuis, hyalinis, 7-8 × 1,5; sporophoris filiformibus, 20-25
μ. long.

Hab. in ramis siccis Forsythiæ suspensæ, Nagy-Körös Hungariæ.

16. Cytospora caracolensis Speg., Fungi Chilenses (1910) p. 153, 6710

cum icon. — Pycnidiis hypodermicis in caulibus nigrefactis orientibus, circinantibus, pellucidis e carneo succineis, piriformibus, 300-600  $\times$  250-300 ostiolis conniventibus fuscidulis; sporulis botuliformibus, utrinque obtusatis, plus minusve incurvatis, 5-6  $\times$  1-1,25, hyalinis.

Hab. in caulibus siccis subputrescentibus Verbasci virgati, Cerro Caracol de Concepción, Chile Amer austr.

17. Cytospora Lycii Diedicke, Ann. Mycol. IV (1906) p. 414. — 6711 Stromatibus sparsis circa ramulum dispositis, epidermide tectis dein ostiolo prominentibus; loculis numerosis proportione angustis, parietibus crassiusculis obscure brunneis limitatis, supra in ostiolum unicum irregulariter confluentibus; sporophoris filiformibus, indivisis v. ramosis, circ. 25 μ. long.; sporulis minutis, rectis v. curvulis, 2-3 × 1.

Hab. in ramis emortuis Lycii barbari, Wendelstein a. U. Thüringia.

18. Cytospora Myricæ-Gales Bres., in Jaap, Verh. Bot. Ver. Prov. 6712 Brand L (1908) p. 46. — Stromatibus gregariis, corticolis, obtuse conoideis, basi circ. 1 mm. diam., intus pallidis, disco applanato albo; sporulis allantoideis, curvulis, hyalinis, 4-5 × 1,2-1,5; sporophoris ramosis, 2 μ. circ. cr.

Hab. in ramulis siccis Myricæ Gales, prope Hamburg Germania. — Socia est Cytospora sororia Bres.

19. Cytospora sororia Bres. in Jaap, Verh. Bot., Ver. Prov. Brand. 6713 L (1908) p. 46. — Cytospora Myricæ Jaap, Ann. Mycol., (1905) p. 400, non P. Henn. (1902). — Pyenidiis prominentibus indistincte multilocularibus; sporophoris usque ad 25 μ. long.; sporulis allantoideis, 4-7 × 1,5.

Hab. in ramis siccis Myricæ Gales, Rostocker Heide Mecklenburg, Germania. — Socia adest Diaporthe valida.

- 20. Cytospora Oudemansii Bres., Ann. Mycol. III (1905) p. 400. Ita 6714 vocanda C. fraxinicola Oudem. Syll. XVI, p. 904 nec P. Brun. Syll. XIV, p. 916.
- 21. Cytospora Loranthi Moesz, Gomb. Budap. I, (1909) p. 20, t. II, 6715 f. 11 a-d (Bot. Közlem.). Stromatibus gregariis, subcutaneis, epidermidem granulato-inflantibus dein erumpentibus, e basi orbiculari, compresso-conoideis, atris, basi 0,7-0,9 mm. diam., poro in disculo unico, multicularibus, loculis plus minusve radiatim ordinatis v. sine ordine stipatis, intus viridulis; sporulis al-

lantoideis, 6-8  $\times$  1,5-2, hyalinis; sporophoris simplicibus, filiformibus, tenuissimis, 14-18  $\mu$ . long.

Hab. in ramis corticatis Loranthi europæi prope Budapest Hungariæ.

22. Cytospora loranthicola Sacc. et Trott. — Cytospora Loranthi 6716 Bres. in Strasser Verh. k. k. zool-bot. Ges. Wien LX, (1910) p. 313, non Moesz. (1909). — Stromatibus parvis, 0,25 mm., conicotruncatis, papilla in disco pallido, demum obscurato centrali singula, atra pertusis, spurie plurilocularibus, v. loculis vix distinctis; sporulis hyalinis, cylindraceo-curvulis, 6-8 × 1-1,5; sporophoris ramosis, 2 μ. cr. suffultis.

Hab. in ramis emortuis Loranthi europæi, Sonntagberg Austriæ. — An diversa a præcedente?

23. Cytospora Broussonetiæ Moesz, Gomb. Budap., (1909) p. 20, t. 6717 II, f. 10 a-c (Bot. Kózlem). — Stromatibus gregariis, subcutaneis, dein erumpentibus, peridermio laciniis irregulariter fissis cinctis, 0,8-1,7 mm. diam., e basi orbiculari compresso-conoideis, atris, poro in disculo unico, multicularibus, loculis radiatim ordinatis; sporulis cylindraceis, allantoideis, 4,5-7,5 × 1-2, plerumque 5-6 × 1,5 hyalinis; sporophoris ramosis, 14-22 μ. long.

Hab. in ramis corticatis Broussonetia papyrifera prope Budapest Hungaria.

24. Cytospora querna Sacc. Ann. Mycol. VI, (1908) pag. 561. — 6718 Stromatibus late gregariis, subcutaneis, discoque minuto griseo erumpentibus, 1 mm. diam. intus 4-6-locularibus atro-cinereis; sporulis anguste allantoideis, distincte arcuatis, utrinque obtusulis, 8,5-9 × 1, hyalinis, eguttulatis; sporophoris dense fasciculatis, bacillaribus, 20-25 × 1, hyalinis.

Hab. in ramis emortuis Quercus pedunculata, Biesenthal pr. Bernau Germaniæ (H. Sydow).

25. Cytospora nigro-cincta Trav. in Bull. n. 8 Société Flore Valdô-6719 taine, pag. 25 extr. (1912). — Pseudostromatibus in areis pallidioribus, variæ magnitudinis, subcircularibus vel irregulariter ellipticis, linea nigrescente plus minusve distincta et sæpe elevatula cinctis singulatim vel paucis insidentibus, subcorticalibus, pustulato-prominulis, primo tectis dein disco minuto, fuligineo-atro, centro perforato erumpentibus, conoideo-truncatis vel depresse hemisphæricis, olivaceo-fuscis, basi discoidea ½-2 mm. lata, 500-800 paltis, varie locellatis, plerumque vero loculo centrali uno majusculo, periphericis copiosis, multo minoribus et irregularibus;

sporophoris dense stipatis, filiformi-bacillaribus, simplicibus, furcatis vel varie verticillato-ramosis, prope basim lutescentibus, 25-35  $\times$  1  $^{1}/_{2}$ ; sporulis copiosissimis, minutis, allantoideis, distincte curvatis, hyalinis,  $4^{1}/_{2}-5 \times 0.7-1$ .

Hab. in ramulis corticatis emortuis Alni, prope Valpelline, Valle d'Aosta, Ital. bor., alt. 950 m. — Pulcherrima species, ob pseudostromata nigro-cincta facillime dignoscenda, habitum Diatrypellæ nigro-annulatæ simulans. Fructificatio ascophora adhuc ignota.

26. Cytospora melanodiscus (Otth) v. Höhn., Sitzb. K. Ak d. Wiss. 6720 Wien CXV, Abt. I, (1906) p. 12. — Dimidiata, scutata, depressa plurilocularis, 1-1 ½ mm. diam., disco distincto polystomo prædita; sporophoris numerosis simplicibus, 6-12 μ. long.; sporulis hyalinis, minutis, plerumque rectis, cylindraceis, 2-3 × 0,5.

Hab. in ramis Alni, prope Steffisburg. Helvetia (Оттн). — Socia adest Valsa melanodiscus (Otth) ad quam verisimiliter pertinet.

27. Cytospora Celtidis Ell. et Ev. — Syll. XI, p. 509. — Voglino 6721 in Ann. R. Acc. d'Agricolt. Torino LI (1908) Extr. p. 25. — Stromatibus nigris lenticularibus, valsoideis, immersis, dein erumpentibus 0,5-1,5 mm. latis, multilocularibus; sporulis cylindraceis, allantoideis, hyalinis, 6-8 × 2; sporophoris simplicibus raro ramosis 10-12 × 2-3.

Hab. in truncis Celtidis australis, cui valde nocet, in Amer. bor. et Nole Canavese Ital. bor.

28. Cytospora Ostryæ Syd., Ann. Mycol (1910) p. 492, Myc. Germ. n. 6722 920. — Stromatibus sparsis v. gregariis peridermio leniter pustulatim elevato tectis, disco minuto, nigro erumpentibus, intus atroolivaceis, 0,5-1 mm. latis, 4-8-locularibus; sporulis allantoideis, 5-7 × 1-1,5 rectis v. leniter curvulis, hyalinis.

Hab. in ramis Ostryæ virginianæ, Tamsel Germaniæ (P. Vogel).

29. Cytospora chætospora Bres. in Strasser, III Nachtr. Pilz. 6728 Sonntagb. in Verhandl. zool. bot. Gesell. Wien, (1905) p. 616. — Stromatibus immersis verruciformibus v. conico-truncatis et erumpentibus, 0,5-0,66 mm. basi latis, plurilocularibus, loculi sine ordine dispositis, sæpe subobsoletis, pluriostiolatis, ostiolis sæpe prominulis nigris, cirro hyalino; sporulis hyalinis cylindraceis, curvulis, utrinque obtusatis, 12-14 × 3, in apice setulis filiformibus præditis, 10-15 × 1; sporophoris 20-24 × 1.

Syll. fung. XXII (IV-1913)

Hab. in cortice Abietis pectinatæ, Sonntagberg Austriæ inf. — Ob sporulas ciliatas potius nov. gen. et tunc spec. dicenda Chætosporella Bresadolæ Sacc.

30. Cytospora Curreyi Lind, Ann. Mycol. V (1907) p. 275. — Stro-6724 matibus crebre sparsis in cortice nidulantibus et peridermium sub-inflantibus, hemisphaericis, intus 10-12 loculis radiantibus præditis, ore papilliformi unico centrali apertis; sporophoris ramosis 14-30 μ. long.; sporulis cylindraceis, curvulis, hyalinis, 4-6 × 1,5, in cirrum purpuraceum projectis.

Hab. ad truncos et ramos emortuos Pini Strobi, Silkeborg Jütlandia Daniæ. — Virisimiliter ad Valsam Curreyi spectans. Cfr. Nitschke, Pyrenomyc. germ. p. 201.

31. Cytospora Yatay Speg., Myc. Argent. V, p. 357, in An. Mus. 6725 Nac. Buenos Aires XX (1910). — Maculis nullis sed matrix tota sordide subnigrescens; stromatibus lenticularibus matrici immersis parum prominulis v. vix exertis, valsoideis, 0,5-1 mm. diam., atris, ostiolo communi papillato; loculis cinereis ellipticis dense constipatis, farctis; sporulis cylindraceis utrinque obtusissime rotundatis 4-5 ≈ 1-1,25, rectis v. curvulis, eguttulatis, hyalinis.

Hab. ad superficiem internam spathæ putrescentis Cocoës Yatay in hortis La Plata Reip. Argent. Amer. austr.

32. Cytospora Calami Syd. Ann. Mycol. VIII (1910) p. 41. — Stro-6726 matibus gregariis, epidermidem pustulatim elevantibus eamque tandem rima longitudinali vel fere stellatim disrumpentibus, subglobosis vel ellipticis, <sup>4</sup>/<sub>2</sub>-1 mm. longis, intus atris, loculos numerosos minutos continentibus; sporulis bacillaribus, rectis vel lenissime curvulis, continuis, hyalinis, 3<sup>4</sup>/<sub>2</sub>-4 × <sup>3</sup>/<sub>4</sub>-1; sporophoris dense stipatis, 10-15 μ. longis.

Hab. ad stipites Calami spec., Mont. Mariveles, prov. Bataan, Luzon, ins. Philipp. (E. D. Merrill.).

33. Cytospora Sacchari Butl., Mem. Dept. Agric in India, Bot. Ser. 6727 I, (1906) p. 31, t. VIII. — Stromatibus verruciformibus, seriatim ordinatis, subcutaneo-erumpentibus, plurilocularibus, nigris, ostiolo elongato singulo rarius duobus præditis; sporulis minutissimis, cylindraceis, curvulis, utrinque obtusis, hyalinis, 3,5 × 1-1,5; sporophoris ramosis, septatis, 12-18 μ. long.

Hab. in culmis vaginisque Sacchari officinarum, Madras, Central Provinces Indiæ orient.

34. Cytospora lirella Syd. Ann. Mycol. VIII (1910) p. 41. — Stro- 6728 matibus elongatis 1-6 mm. longis, <sup>4</sup>/<sub>s</sub>-1 mm. latis, dense seria-

tim et parallele dispositis, valde confertis et plagas atras haud interruptas plura em longas latasque efformantibus, carbonaceis; pycnidiis immersis, ovatis, optime secus series duas juxtapositas ordinatis; ostiolis prominulis, atris, glabris; sporulis allantoideis, leniter curvulis,  $5-8 \times 1^{1}/_{2}-2$  subhyalinis vel dilutissime brunneolis.

Hab. ad culmos emortuos Bambusæ in silva, Dumaguete Mont. Cuernos, Province of Negros oriental, Bulucaowi, in. Philipp. leg. E. D. E. Elmer. — Probabiliter ad Eutypæ spec. pertinet.

- PLAGIORHABDUS Shear, Bull. Torr. Bot. Club XXXIV, (1907) p. 310. (Etym. plagios obliquus et rhabdos virga, sporophorum).

   Pycnidia irregulariter plurilocularia late ostiolata, stromate tenui, effuso, nigro, subcoriaceo tecta; sporulæ hyalinæ, continuæ, basi ex sporophoris oblique adhærentibus appendiculatæ.
- 1. Plagiorhabdus Cratægi Shear, l. c. p. 310. Stromate tenui, 6729 nigro, effuso, epidermide circumdato, superficie leniter ruguloso; pycnidie parietibus crassis præditis, forma magnitudine variabilibus, immersis et crusta stromatica tectis; sporulis allantoideis plerumque biguttulatis, 9-12 × 3-4, appendice 12-20 × 1.

Hab. in fructibus vetustis Cratægi punctatæ, Washington Amer. bor.

2. Plagiorhabdus Oxycocci Shear l. c. p. 311. — Pycnidiis sparsis, 6730 plerumque hypophyllis, irregulariter depresse globosis, immersis, 125-190 μ. diam., leniter erumpentibus; contextu pycnidii subtenui, ostiolis subprominentibus; sporulis hyalinis v. in massa tenuiter viridi-flavidis, curvulis v. allantoideis, 8-10 × 3, appendice basilari 10-15 × 0,75.

Hab. in foliis Vaccinii macrocarpi, Carver Mass. Amer. bor. (H. J. Franklin).

CEUTHOSPORA Fr. — Syll. III, p. 277, X p. 250, XI p. 510, XIV p. 918, XVI p. 905, XVIII p. 301.

1. Ceuthospora Punicæ Bubák, Bull. Herb. Boiss. 2 ser. IV (1906) p. 6781 475. — Pycnidiis parce gregariis, globosis, nigris, subcarbonaceis, basi depressis, v. immersis, demum superficialibus; contextu parenchymatico firmo, extus nigro intus pallidiore, loculis plus vel minus distinctis; sporulis cylindraceis, 4-6 × 0,75-1, rectis, raro curvulis, apice rotundatis, guttulatis, hyalinis; sporophoris 6-10 × 1,5-2, apice angustatis, hyalinis, ramosis.

Hab. in superficie interna corticis fructuum Punicæ Granati

prope Ulcinj Montenegro.

2. Ceuthospora? Cocculi Speg., Myc. Argent. V, p. 358, in An. 6732 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis v. obsoletissimis, ægre perspicuis, pallescentibus indeterminatis, 3-7 mm. diam., stromatibus epiphyllis, parenchymate innatis, epidermidem per ætatem irregulariter disrupta tectis, repando-orbicularibus, 150-250 μ. diam., tenuissimis, contextu parenchymatico olivaceo; loculis 2-4 in quoque stromate, sublenticularibus, 50-75 μ. diam.; sporulis bacillari-subfusoideis, utrinque acutato-subrotundatis, 10-20 × 1-1,25, rectis v. leniter curvulis, hyalinis, eguttulatis.

Hab. ad folia dejecta putrescentia Cocculi laurifolia in

hortis La Plata Reip. Argentinæ Amer. austr.

3. Ceuthospora Feurichii Bubák, Ann. Mycol. IV (1906) p. 115. — 6738 C. foliicola Krieg. Fungi saxon. n. 1887. — Stromatibus amphigenis regulariter distributis v. sparsis, nigris, profunde immersis v. epidermide pustuliformi albicante tectis, demum poro erumpentibus, plurilocularibus; loculis singulis globosis v. irregulariter ellipsoideis, usque ad 200 μ. alt. et 150 μ. latis, contextu parenchymatico, supra castaneo-brunneo, v. flavo-brunneo; sporulis cylindraceis v. cylindraceo-fusoideis, 9-13 × 2, basim versus plerumque angustatulis supra rotundatis; sporophoris filiformibus, dendroideo-ramosis, sporulas subæquantibus v. longioribus.

Hab. in foliis emortuis Vincæ minoris, prope Göda, Saxonia (H. G. Feurich).

4. Ceuthospora Phlomidis Bubák, Bull. Herb. Boiss. 2 ser. VI (1906) 6734 p. 476. — Stromatibus sparsis depresse conoideis, usque ad 0,5 mm. latis, nigris, plurilocularibus, sæpe indistincte, 200-300 μ. altis, supra depressis; contextu nigro-brunneo, parenchymatico; sporulis ex elongato breviter fusoideis, 4,5-9 × 1,5-2,5, rectis, utrinque rotundatis v. ibique sæpe v. uno apice tantum angustatis, guttulatis, hyalinis.

Hab. in caulibus siccis Phlomidis tuberosæ, prope Ulcinj Montenegro,

5. Ceuthospora lunata Shear, Bull. Torr. Bot. Club XXXIV (1907) 6735 p. 312. — Pycnidiis sparsis, amphigenis, discoideis, subpulvinatis, immersis, leniter erumpentibus, tectis, 200-375 p. diam., subcoriaceis, crasse tunicatis, intus irregulariter plurilocularibus, ostiolis prominentibus præditis; sporophoris subramosis, ramulis bre-

vibus; sporulis subhyalinis v. in massa pallide viridi-flavidis, in:equilateralibus v. sublunatis,  $7.9 \times 3-3.5$ .

Hab. in foliis dejectis Vaccinii macrocarpi, N. Jers. et
Mass. Amer. bor. — Sporulæ illis Phomæ cytosporeæ similes.
— A typo generis satis recedit.

6. Ceuthospora atra Lind, Ann. Mycol. V (1907) p. 276. — Stro-6786 matibus sparsis, lenticularibus, immersis, nigro-piceis, irregularibus, 15-20-locularibus, et totidem ostiolis præditis; contextu parenchymatico brunneo 75 μ. cr., parietibus loculorum 15 μ. cr. subhyalinis; sporophoris ramosis, hyalinis, 25 × 2; sporulis rectis, utrinque obtusis, 15-16 × 2-3, hyalinis.

Hab. in foliis siccis Fagi silvatica, Silkeborg Jütlandia Dania.

7. Ceuthospora melaleuca Ferdinands. et Winge, Bot. Tidsskr. XXVIII, 6787 (1907) p. 254, fig. 4. — Stromatibus epiphyllis, subepidermalibus, cubico-conicis, 2-6 locularibus, poro singulo, 300-375 μ. diam., substrato innatis, pustulas inferne atras, superne albidas formantibus; sporulis bacillaribus, hyalinis, 11-15 × 3.

Hab. in foliis dejectis Gingkonis bilobæ, in horto bot. Hafniensi Daniæ.

8. Ceuthospora Lycopodii Lind, Ann. Myc. v. III (1905) p. 429, 6788 cum icon. — Stromatibus epiphyllis, plurilocularibus, obtuse conoideis, nigris, ostiolo concolori subprominentibus; sporulis cylindraceis, rectis, stipitatis, hyalinis, unilocularibus, utrinque obtusis, 20 × 3.

Hab. in foliis emortuis Lycopodii annotini, Wiborg Jütland Sueciæ.

- Geuthospora Ellisii Sacc. et Trott. Ita dicetur Ceuthospora abie-6739
  tina Ellis (1904). Syll. XVIII, p. 302 quæ videtur satis diversa ab homonyma et anteriore Ceuth. abietina Delacroix Syll.
  X, p. 250.
- ENDOTHIELLA Sacc. Not. Myc. VII, Ann. Myc. IV (1906) p. 273. (Etym. ab Endothia, cujus est pycnidium et quam habitu imitatur). Stroma corticale innato-superficiale, pulvinatum, nunc discretum, nunc statui ascophoro impositum, læte coloratum (aurantiacum v. rubrum) tenue suberosum, friabile (nec carnosum) intus inæqualiter pluri-locellatum, ostiola (ubi manifesta) obtusa et interdum umbilicata. Sporulæ oblongæ, minutissimæ, continuæ, hyalinæ, sporophoris filiformibus ramoso-dendroideis suffultæ. —

Adest quandoque forma epixyla stromatibus deminutis, immo sæpius in pyenidia discreta, globoso-conica, subrostellata solutis.

1. Endothiella gyrosa Sacc. l. c. p. 273. — Stromatibus corticolis 6740 dense gregariis, subconfluentibus, rubris v. rubro aurantiis, intus flavis, pulvinatis; lignicolis omnino superficialibus deminutis et sæpius in pycnidia solitaria v. parce connata solutis; pycnidiis globulosis, 0,2-0,3 mm. diam., modo obtusis, modo conico-subro-stellatis, poro latiuscule aperto; sporulis oblongis, curvulis, hyalinis, eguttatis, 3 × 1; sporophoris filiformibus, irregulariter dendroideo-ramosis, 40-55 × 1, intermixtis nonnullis subindivisis.

Hab. in cortice et ligno nondum putrescentibus Quercus, Carpini, Castaneæ, Æsculi etc. plerumque socio statu ascophoro (Endothia gyrosa\*)) in Europa et America bor. Formam epixylam pulcre rostellatam, Sphæronæmellæ æmulam, in Quercu ex Alba Pedemontii communicavit cl. prof. T. Ferraris.

## Sect. 2. Phæosporæ.

CONIOTHYRIUM Corda — Syll. III p. 305, X p. 261, XI p. 514, XIV p. 922, XVI p. 909, 1155, XVIII p. 302.

1. Coniothyrium Hellebori Cooke et Mass., Sacc. Syll. X (1908) p. 6741 261. — var. Hellebori-viridis C. Mass., Osserv. fitol. in Madonna Verona v. II, (1908) Extr. p. 10. — Maculis subovalibus 2-3 cent. latis, fuliginosis, dein pallescentibus, concentrice rugulosis; pycnidiis epiphyllis punctiformibus nigris, prominulis; sporulis e subgloboso ovoideis 5-6 \* 3-4.

Hab. in foliis Hellebori viridis, prope Cogolo, Verona Italiae bor.

<sup>\*)</sup> Præeuntibus ill. Tulasne et Fuckel, nomen Endothiæ gyrosæ in Sylloge recepi, sed ex autopsia speciminum originalium Schweinitzii (testibus auctor. americanis) evincitur speciem nostram cum Sphæria radicali Schw. perfecte collidere, non vero cum Sphæria gyrosa Schw., quæ heterogenea v. dubia manet. Qua de re nostra rectius Endothia radicalis (Schw.) De Not. dicenda est. — Quod ad Diaporthem parasiticam Murr. (= Endothia parasitica (Murr.) Anders.) attinet, hæc quam maxime accedit ad End. radicalem, sed quia vere parasitica (et pathogena!) et quia omnibus partibus nonnihil (etsi perpaullulo) sit major, distinguenda videtur. Diceretur forma ob parasitismum exaltata Endothiæ radicalis! Cfr. supra p. 390 et E. Pantanelli in Rend. Acc. Linc. 1912 p. 869, ubi vexata quæstio clare exponitur.

2. Coniothyrium Magnoliæ (West.) Sace. et Trav. Syll. XIX p. 400. 6742 – Monoplodia Magnoliæ West, in Bull. Acad. roy. Belg., ser. 2, VII (1859) p. 21, tab. f. 19 (extr.) — Pycnidiis sparsis, nigris, immersis, prominulis, papillatis; sporulis globulosis, 6,6 p. diam., copiosissimis demum exeuntibus et matricem nigro-inquinantibus.

Hab. in foliis Magnoliæ grandifloræ in Belgio (CL. Dumont). — Genus Monoplodia West. (1859) revera ab auctore non definitum, congruit cum Coniothyrio Corda (1840) anteriore.

3. Coniothyrium Lesquerellæ J. Lind, Micromycetes from North-East 6743 Groenlandia, Kiobenhavn (1910) p. 161. — Pycnidiis sparsis, e globoso lenticularibus, subcutaneis, vix erumpentibus, tenuibus, membranaceis, atris, majusculis, c. 350 μ. diam., ostiolo vix prominente pertusis; sporulis ut plurimum perfecte globosis, atrofuscis, eguttulatis, 7-10 μ. diam.

Hab. in ramis emortuis Lesquerellæ (Vesicariæ) arcticæ, Harefjeld Groenlandia.

4. Coniothyrium Hyperici P. Henn., Verh. Bot. Ver. Prov. Brandb. 6744 XLVII (1905) p. 221. — Peritheciis erumpentibus atris, lenticulari-rotundatis, perforatis, cellulosis, 100-150  $\mu$ . cr.; sporulis ellipsoideis v. subglobosis, fuligineis, continuis, 3-3,5  $\approx$  2-2,5.

Hab. in caulibus siccis Hyperici perforati, Hellmühle Germaniæ. — Socia adsunt Diploceras hypericinum (Ces.) et Phoma Hyperici-perforati P. Henn.

5. Coniothyrium melanconieum Sacc. Ann. Mycol. III (1909) p. 436. 6745 — Pycnidiis gregariis v. subsparsis, epidermide velatis, lenticularidepressis, 200 μ. diam., nigricantibus, ostiolo circulari impresso pertusis; contextu tenuissimo, pallide olivaceo, obsolete celluloso; sporulis obovatis, 6-8 × 4, apice obtusioribus, minute pluriguttulatis, olivaceo-fuligineis; sporophoris inconspicuis.

Hab. in ramulis languidis v. emortuis Ribis Grossulariæ pr. Tamsel Germaniæ (P. Vogel). — Tam ob pycnidia nigra trans epidermidem conspicua, quam ob sporulas atras species habitum Melanconii ostendit. A Conioth. Ribis prasertim pycnidiis valde applanatis dignoscitur.

6. Coniothyrium Tamaricis P. Henn. in Kabát et Bubák Fungi imp. 6746 exs. n. 458 (1907). — Pycnidiis sparse vel gregarie erumpentibus, subglobosis vel sublenticularibus, atris, 90-120 μ. diam.; sporulis ellipticis vel ovoideis, 5-8 × 3<sup>1</sup>/<sub>2</sub>-4<sup>1</sup>/<sub>2</sub> μ., hyalino-flave-scentibus, continuis.

Hab. in ramis Tamaricis gallicæ in horto bot. Dahlem Germaniæ.

7. Coniothyrium Silenes Bondarzew, Acta Horti Petropol. XXVI, 6747 (1906) p. 43 (extr.). — Maculis rotundatis, pallidis, marginatis; pycnidiis epiphyllis globoso-lenticularibus, sparsis, innatis, brunneolis v. atris; sporulis piriformibus, 12-15 × 4-5,5, continuis, hyalinis, 1-2-guttulatis; sporophoris breviter cylindraceis.

Hab in foliis vivis Silenes nutantis in ditione Kursk Bossie.

8. Coniothyrium tumefaciens Güssow, Journ. Roy. Hort. Soc. XXIV, 6748 (1908) p. 229. — Masse Dis. cult. Plants, (1910) p. 417. — Pycnidiis nigricanti-brunneis, sparsis; sporulis subolivaceis, ellipsoideis, 5-7 × 3-4; sporophoris longis, simpliicbus v. ramosis.

Hab. in caulibus vivis Rubi fruticosi, quibus excrescentias a pisi ad nucis magnitudinem efficit, in Britannia.

9. Coniothyrium piricola Potebnia, Myc. St. in Ann. Myc. v. V 6749 (1907) p. 16 et Trav. Soc. Nat. Univ. Kharkov, XXXXIII (1907).

— Pycnidiis epiphyllis, pallide brunneis, atro-nucleatis, globulosis,

70-140  $\mu$ . cr. apice ostiolatis; sporulis 5-6  $\times$  2,5-3, pallide brunneis in cirrum expulsis.

Hab. in foliis vivis Piri Mali, socia Phyllosticta Briardi Kursk Rossia

10. Coniothyrium Armeniacæ Hollós, Ann. Mus. Nat. Hung. IV, 6750 (1906) p. 355, tab. VIII, fig. 7. — Pycnidiis gregariis, superficialibus, depresso-globosis, brunneis, opacis, 140-160 μ. diam.; sporulis ellipsoideis, continuis, flavido-brunneis, plerumque in uno latere applanatis, centralibus crasse guttatis, 8-10 × 5,5.

Hab. in putamine putrescente Armeniacæ vulgaris, socio Perisporio funiculato cujus videtur status pycnidicus, Kecskemét Hungariæ.

11. Coniothyrium Persicæ Sacc. et Cub. in Sacc. Ann. Mycol. X 6751 (1912) p. 318. — Pycnidiis sparsis minutissimis, subsuperficialibus, nigris, 90-100 μ. diam., poro exiguo pertusis; contextu minute celluloso, fuligineo; sporulis subsessilibus, ellipsoideis, 9-10 × 5, e latere leviter depressis, dilute brunneis.

Hab. in superficie interiore putaminum dejectorum Persicae vulgaris, Conegliano, Ital. bor. (G. Cuboni). — E subgenere Epithyrium.

12. Coniothyrium microperoides (Schulz.) Sace. et Trav. Syll. XIX p. 6752 400. — Phoma microperoides Schulz. v. Mügg. in Verh. 2001.-bot.

Ges. Wien (1871) p. 1218, t. 13, f. 1. — Pycnidiis subcutaneis, prominentibus, demum ostiolo subpapillato erumpentibus, globulosis, nigris, 300-1000 μ. diam.; sporulis atro-brunneis, ovato-oblongis, 6–8 μ. longis, nucleatis; sporophoris bacillaribus subinde ramulosis, sporulâ multo longioribus.

Hab. in ramis corticatis Cydoniæ vulgaris in Hungaria.

13. Coniothyrium proteus (Schuz.) Sacc. et Trav. Syll. XIX, p. 400. 6753 — Myxosporium proteus Schulz. v. Mügg. in Verh. zool-bot. Ges. Wien (1871) p. 1222, t. 13, f. 3 a-e (non f-g). — Pycnidiis gregariis, subinde paucis contiguis, subcutaneo-erumpentibus, globosoconoideis, atris, 270-600 μ. diam., intus albidis; sporulis brunneis ovoideis v. ovato-oblongis, 3-5 μ. longis, sporophoris (?) filiformibus multo longioribus suffultis.

Hab. in ramis corticatis Cydoniae vulgaris in Hungaria.
— In fig. f-g habetur forma pycnidio carens, quæ certe heterogenea.

14. Coniothyrium Cystotricha (Schulz.) Sacc. et Trav. — Syll. XIX, 6754 p. 398. — Sacidium Cystotricha Schulz. v. Mügg., in Verhandl. zool.-bot. Ges. Wien (1871) p. 254, t. 13, f. 35. — Pycnidiis e basi applanata conoideis, papillatis, superficialibus, nigris, 500-600 μ. diam., subcarbonaceis, intus albido-griseis, basi hyphulis brunneis ramulosis, septatis cinctis; sporulis ovato-oblongis, 5-6 μ. longis, brunneis.

Hab. in ramis decorticatis emortuis Cydoniæ vulgaris in Hungaria. — Ob pycnidia superficialia subgeneri *Epithyrio* adscribendum.

15. Coniothyrium papillatum (Schulz.) Sacc. et Trav. — Syll. XIX, 6755 pag. 400 — Clisosporium papillatum Schulz. v. Mügg., in Verh. zool.-bot. Ges. Wien (1871) p. 1225, t. 13, f. 5. — Pycnidiis gregariis, superficialibus, globosis v. centro parum depressis, eximie obtuse papillatis, 450-600 μ. diam., rugulosis, atro-brunneis; contextu crassiusculo intus albo-celluloso; sporulis subsessilibus, ovato-oblongis, nucleatis, 6.7 μ. longis.

Hab. in ramis jam statu viventi decorticatis in Hungaria. — Ob pycnidia superficialia ad subg. Epithyrium referenda species.

16. Coniothyrium Lathyri Potebnia, Myc. St. in Annal. Myc. X (1907) 6756
p. 16, Trav. Soc. Nat. Univ. Kharkov XXXXIII (1907). — Pycnidiis 70-85 μ. long.; sporulis 5-5,5 × 3,5.

Hab. in stipulis Lathyri pisiformis prope Kursk Rossiæ.

17. Coniothyrium olivaceum Bon. — Syll. III, p. 305 — var. Gy- 6757

mnocladi Hollós, Növényt., Közlemén. (1907) VI, Extr. p. 6. — Sporulis ovoideis, continuis, fuscis, eguttulatis, 6-7 × 4-5.

Hab. in ramis siccis, dejectis Gymnocladi canadensis, Nagy-Körös Hungariæ. — var. Kælreuteriæ Hollós, l. c. — Sporulis ovoideis, continuis, brunneo-olivaceis, eguttulatis, 6-8 × 3-4. — In ramis siccis Kælreuteriæ paniculatæ, Nagy-Körös Hungariæ. — var. Pteleæ Hollós l. c. — Sporulis oblongo-ellipsoideis, continuis, brunneo-olivaceis, eguttulatis, 6-7 × 2,5-3. — In ramis siccis Pteleæ trifoliatæ, Nagy-Körös Hungariæ.

18. Coniothyrium fructicola Hollós, Növényt. Közlemén. (1907) VI, 6758 Extr. p. 6- — Pycnidiis epidermide tectis, gregariis, globoso-depressis, nigris, poro pertusis, 350-400 μ. diam., contextu parenchymatico; sporulis ovoideis, continuis, fuscis, uniguttulatis, plerumque biguttulatis, 6-8 × 5-6; massa sporularum nigra.

Hab. in fructibus dejectis Gymnocladi canadensis, Kecskemét Hungariæ.

19. Coniothyrium Yerbæ Speg., An. Mus. Nac. B. Aires t. XVII (1908) 6759 p. 135. — Matrice tota pallide cinerescente, circa pycnidia sæpius pallidiore; pycnidiis punctulatim prominulis 100-150 μ. diam., fuscis, epidermide velatis, circa ostiolum rotundum latiusculum parenchymaticis, nigris coriacellis, ceterum tenuissimis ægre perspicuis (an incompletis?); sporulis ellipsoideo-globosis, utrinque obtusis, 4-5 × 3-4, non v. grosse uniguttulatis, fusco-fumosis.

Hab. ad ramulos languidos v. arescentes Ilicis paraguariensis in dumetis prope Fracran Misiones in Rep. Argentina.

20. Coniothyrium maticola Spegazz., An. Mus. Nac. Buenos Aires 6760 t. XVII (1908) p. 135. — Maculis nullis; pycnidiis laxe gregariis epidermide velatis, membranaceis, lenticularibus, 80-100 μ. diam., ostiolo minuto rotundo impresso perforatis; sporulis ellipsoideocylindraceis, utrinque rotundato-subtruncatis, 6-8 × 3-3,5, eguttulatis, levibus, olivaceis.

Hab. ad ramulos languidos Ilicis paraguariensis in dumetis circa San Pedro Reip. Argentinæ.

21. Coniothyrium Mate Speg., An. Mus. Nac. Buenos Aires t. XVII 6761 (1908) p. 135. — Matrice sepius dealbata; pycnidiis subsparsis e matrice semiexertis, nigris, subconoideis, 150-200 μ. diam., carbonaceis, glabris, ostiolo valide papillato coronatis, contextu opaco indistincto; sporulis ellipsoideis, utrinque obtusiusculis, non v. grosse 1-guttulatis, 5-6 × 2,5-3, fuligineis.

Hab. ad truncos cariosos Ilicis paraguariensis in silvis circa San Pedro Reip. Argentinæ.

22. Coniothyrium euphorbicola Hollós, Ann. Mus. Nat. Hung. V (1907) 6762 pag. 464. — Pycnidiis superficialibus, dense gregariis, brunneis, demum nigris, globulosis, 300-350 μ. d., contextu parenchymatico; sporulis oblongo-ellipsoideis vel piriformibus, inferne papillatis, olivaceis, biguttulatis, 11-12 × 6-7; sporophoris filiformibus 20-24 μ. longis.

Hab. in caulibus siccis Euphorbiæ palustris prope Kecskemét Hungariæ. — A Con. Euphorbiæ (Roum.) et C. silvatico Sacc. et Malbr. satis diversa.

23. Coniothyrium rhamnigenum (Sacc.) Bubák, Hedwigia XLVII 6768 (1908) p. 361. Ita vocanda esset *Phyllosticta rhamnigena* — Syll. III, p. 14. — Sporulis globosis, ellipsoideis, ovoideis v. breviter cylindraceis, 4-9 × 3-4,5, rectis v. curvulis, demum reniformibus, utrinque rotundatis, unilocularibus, brunneo-olivaceis.

Hab. in foliis emortuis Rhamni catharticæ inter Jungbunzlau et Josefstal, Bohemia (KABAT).

24. Coniothyrium Duméei Br. et Cav., Funghi parass. n. 392 (1905), 6764 cum icon. — Pycnidiis epiphyllis, sparsis, 120 μ. diam., in mesophyllo insidentibus, ostiolis latis præditis, maculas marginales sat irregulares, brunneas efformantibus; sporulis brunneo-castaneis, continuis, ellipsoideis, utrinque obtusis, uni-biguttulatis, 6-6,5 × 4-5,5; sporophoris nullis v. obsoletis.

Hab. in foliis vivis Rhamni Frangulæ, Meaux Gallia (P. Dumée).

25. Coniothyrium Saxifragæ Rostr., Rep. second Norweg. arctic 6765 Exped. Fram (1906) p. 8. — Pycnidiis gregariis, epiphyllis, atrofuscis, hemisphæricis, opacis; sporulis oblongis, sæpe medio subconstrictis, fuscis, pariete crasso, 9-10 × 5.

Hab. in foliis Saxifragæ tricuspidatæ, Ellesmere Land, Cape Rutherford Norvegiæ.

26. Coniothyrium Boldoæ Speg., Fungi Chilenses (1910) p. 154. — <sup>6766</sup> Pycnidiis hypodermicis sparsis, sublenticularibus, 100-120 μ. diam., atris, coriacellis, minute ostiolatis; sporulis ellipsoideis v. subcylindraceis, utrinque rotundatis, 6-8 × 2,5-4, non v. 1-2-guttulatis, fuligineis.

Hab. in ramulis siccis Boldoæ fragrantis, prope Talcahuano Chile Amer. austr.

27. Coniothyrium Sambuci Earle, Bull. of the New York Bot. Gard. 6767

(1904) p. 295. — Pyenidiis sparsis v. subgregariis, immersis, demum plus minusve erumpentibus, nigris, globosis, non collabascentibus, 300-350  $\mu$ . diam., contextu firmo parenchymatico, cellulis regularibus 7-10  $\mu$ . diam., ostiolo papillato; sporulis obscure fuscis, subglobosis, eire.  $8 \times 7$ ; sporophoris nullis v. inconspicuis.

Hab. in ramis emortuis decorticatis Sambuci, Snow Valley Peak, Ormsby Co. Nevada Amer. bor. (BAKER).

28. Coniothyrium Campanulæ Hollós, Ann. Mus. Nat. Hungar. VIII 6768 (1910) p. 7. — Pycnidiis sparsis, erumpentibus, globosis, atris, papillatis, 400-450 μ. diam.; sporulis ellipsoideis v. obovatis, continuis, olivaceis, biguttulatis, 5,5-6 × 3-4.

Hab. in caulibus siccis Campanulæ glomeratæ prope Kecskemét Hungariæ.

29. Coniothyrium valdivianum Speg., Fungi Chilenses (1910) p. 154. 6769

— Pycnidiis laxe gregariis, primo epidermide tectis dein nudis, lenticularibus, 200-250 μ. diam., minute ostiolato-papillatis, atris, membranaceis; sporulis pusillis, ellipsoideis, ovoideis v. subglobosis, utrinque obtusis, 3-4 × 2-2,5, pallide olivaceis.

Hab. in caulibus siccis putrescentibus Digitalis purpureæ prope Ciudad de Valdivia Chile Amer. austr.

30. Coniothyrium Viburni Hollós, Ann. Mus. Nat. Hung. IV (1906) 6770 p. 356. — Pyenidiis initio epidermide tectis, dein superficialibus, dense gregariis, globosis, apice brevissime papillatis, rufo-brunneis, 0,5 mm. diam.; sporulis oblongo-ellipsoideis, continuis, initio hyalinis, dein flavidulis, demum olivaceo-brunneis, eguttulatis, 6-7 × 3-3,5 massa sporularum carbonacea.

Hab. in ramis siccis Viburni Opuli, Kecskemét Hungariæ.
31. Coniothyrium Coptospermæ P. Henn., in Væltzkow, Reise Osta-6771 frika III (1908) p. 32. — Maculis effusis, pallidis, exaridis; pycnidiis erumpentibus, gregarie sparsis, epiphyllis, lenticulari-hemisphæricis, atris, perforatis, 40-60 μ.; sporulis ellipsoideis v. ovoideis, 1-2-guttulatis, 5-7 × 3-3,5, brunneo-fuscis.

Hab. in foliis Coptospermæ nigrescentis, Nossi-Bé Madagascar (J. M. HILDEBRANDT).

32. Coniothyrium Coffeæ P. Henn., Hedwigia XLVII (1908) p. 263. 6772
 — Pycnidiis gregariis innato-erumpentibus, minutis, atris, globulosis, perforatis, c. 120-150 μ.; sporulis oblongis, utrinque obtusis, 1-2-guttulatis, brunneo-fuscis, 5-6 × 2-2,5.

Hab. in ramulis siccis Coffee arabice, Luzon, Prov. Benguet, Kabayan ins. Philippin. (MERRILL).

33. Coniothyrium Amphistelmæ P. Henn., Hedwigia XLVII (1908) 6778 p. 270. — Pycnidiis sparse gregariis, erumpentibus, minutis, punctiformibus, atris, pulvinatis, poro pertusis; sporulis ellipsoideis, utrinque obtusis, castaneis, 8-10 ≈ 4-5.

Hab. in caulibus siccis Amphistelmæ sp., Maracas Bahia in Brasilia

34. Coniothyrium baccharidicola Speg., Myc. Argent. V p. 359, in 6774 Ann. Mus. Nac. Buenos Aires XX (1910). — Maculis nullis vel obsoletis pallescentibusque; pycnidiis sæpius epiphyllis numerosis, innato-prominulis, 80-100 μ. diam., contextu indistincto opaco, nigris, coriaceis, minute ostiolatis; sporophoris bacillaribus laxe constipatis, 5-15 × 1, hyalinis, monospermis, paraphysibus triplo longioribus non v. vix crassioribus parce commixtis; sporulis obovatis, rarius ellipsoideis v. subpiriformibus, 12-13 × 6-7, fuligineis, levibus.

Hab. ad folia languida Baccharidis pingreæ in collinis Valcheta Patagonia Amer. austr.

35. Coniothyrium Gmelinæ P. Henn., Hedwigia XLVII (1908) p. 263. 6775 — Pycnidiis subepidermico-erumpentibus, subglobosis, atris; sporulis ellipsoideis, atro-castaneis, 4-5 ≥ 4.

Hab. in ramis siccis G melinæ villosæ in societate Diplodice Gmelinæ, Mindanao, Davao ins. Philipp. (Copeland).

36. Coniothyrium Oroxyli P. Henn., Hedwigia XLVII (1908) p. 263. 6776

— Maculis effusis, pallidis v. fuscis; pycnidiis sparse gregariis, innato-erumpentibus, ellipsoideis v. globulosis, atris, cellulosis, c. 160-180 ≥ 130-150; sporulis ellipsoideis v. subglobosis, 1-guttulatis, atro-fuscis, 4 ≥ 2.

Hab. in capsulis putridis Oroxyli indici, Mindanao, Davao ins. Philipp. (Copeland).

37. Coniothyrium olivaceum Bon. apud Fuck. — Syll. III, p. 305 — 6777
var. Tecomæ Sacc., Not. Myc. VII, Ann. Myc. IV (1906) p. 276.
— Pycnidiis innato-emergentibus globulosis, atro-nitidulis, 200 μ. diam.; sporulis ellipsoideis, dilute olivaceo-fuscis 6,5-7 × 4.

Hub. in ramis morientibus Tecomæ redicantis, Lyndon-ville New York Amer. bor. (C. E. FAIRMAN).

38. Coniothyrium phyllogenum Sacc. in Ann. Mycol. X (1912) p. 318 6778 — Syll. X, p. 265 (ut var.). — Maculis epiphyllis orbiculari-angulosis, minutis, vix 2 mm. latis, non v. obscure zonatis; pycnidis punctiformibus, epidermide diu velatis; sporulis ellipsoideis, 7-9 × 4-5, olivaceis, subsessilibus.

Hab. in foliis languidis Rhododendri sp. in calidariis, Romæ (D. Saccardo).

39. Coniothyrium Phytolaccæ Hollós, Ann. Mus. Nat. Hungar. VII 6779 (1909) pag. 55. — Pycnidiis gregariis, erumpentibus, globulosis, nigris, nitidis, poro pertusis, 280-320 μ. diam.; sporulis numerosissimis, ellipsoideis, continuis, fuligineis, semipellucidis, biguttatis, 5-7 × 3-4.

Hab. in caulibus siccis decorticatis Phytolaccæ decandræ prope Kecskemét Hungariæ.

40. Coniothyrium Polygoni Hollós, Novényt. Közlemén. IV (1907) 6780 Extr. p. 6. — Pycnidiis epidermide tectis, sparsis, sordide albomarginatis, lenticularibus, nigris, poro pertusis, 210-280 µ. diam.; sporulis sphæricis v. ovoideis, olivaceo-brunneis 12-14 × 9-14.

Hab. in caulibus siccis Polygoni lanigeri, Kecskemét Hungariæ.

41. Coniothyrium Obionis Jaap, Weit. Beitr. Pilzfl. nordfr. Ins., Schr. 6781 Naturw. Ver. f. Schlesw.-Holst. Bd. XIV, Heft 1, p. 29 (1907). — Pycnidiis gregariis, punctiformibus, nigris, primum subcorticolis, dein erumpentibus, depresse globosis, breviter ostiolato-papillatis, 150-200 μ. latis, membranaceis, contextu indistincte parenchymatico, flavido, ostiolo rotundato obscuriore, 30 μ. circ. lato; sporulis ovoideis, ellipsoideis v. subglobosis, pallide olivaceis, 5-8 × 3,5-5, unilocularibus, non guttulatis.

Hab. in ramulis siccis Obionis portulcoidis prope Norddorf in ins. Amrum Frisia.

42. Coniothyrium Humuli Hollós, Ann. Mus. Nat. Hungar. V (1907) 6782
 p. 53. — Pycnidiis epidermide tectis, gregariis, globosis, nigris, ostiolo conico perforato erumpente, 240-280 μ. diam., contextu parenchymatico; sporulis subglobosis v. ovoideis, fuscis, 8-10 × 5-6.

Hab. in sarmentis Humuli Lupuli prope Kecskemét Hungariæ. — A Conioth lupulino Bres. differt sporulis majoribus.

43. Coniothyrium epiphyllum Cooke, in Rav. Fungi Amer. exsicc. 6788 n. 244 (1879) (sine diagnosi). — Pycnidiis epiphyllis sparsis, globoso-depressis innato-erumpentibus, nigris, 300 μ. diam. intus farctis, contextu fusco-fulvescente parum distincto; sporulis globosis e hyalino fuscellis 3-4 μ. diam.

Hab. in foliis languidis non maculatis Quercus Catesbeyi, Aiken, S. Carolina, in America boreali.

44. Coniothyrium Betulæ Laubert, Arb. k. biol. Anst. f. Land- u. 6784 Forstwirtsch. V (1906) p. 208, fig. 2. — Pycnidiis gregariis, ple-

rumque subepidermidici, erumpentibus v. superficialibus, sphæroideis, parietibus nigricantibus præditis, 0.16-0.4 mm. lat., 0.12-0.24 mm. altis, plerumque minute papillato-ostiolatis; sporophoris brevissimis subnullis; sporulis ovoideis unilocularibus, e griseo-brunneolo flavo-brunneolis, quandoque etiam subhyalinis, plerumque grosse 1-2-guttulatis,  $4-5.5 \approx 3-4$ .

Hab. in ramulis languidis Betulæ, Kreis Jerichow prov. Sachsen Germania. — Verisimiliter pathogenum et morbum dictum « Einschnürungskrankheit » efficiens.

45. Coniothyrium salicicola Rota-Rossi G., in Atti R. Ist. bot. Pa-6785 via XI (1905) pag. 307-308 e Primo Contrib. Micolog. Bergamo l. c. — Maculis parvis, irregularibus, primo fusco-ferrugineis et interdum nigro-marginatis, arescendo albis v. albo-griseis; pycnidiis epiphyllis, globosis, nigris, pertusis, parvis, 90-120 μ. diam.; sporulis copiosis, ovoideis, fuligineis, continuis, 5-6,5 × 3-3,5.

Hab. in foliis Salicis vitellinæ, Palazzago, Bergamo Italiæ borealis. — A Con. eurotioide colore pycnidiorum sporularumque mensuris et loco (in foliis) vere differt.

46. Coniothyrium Hariotianum Speg., Fungi Paulist., Rev. Mus. La 6786 Plata t. XV (1908) p. 36. — Maculis sparsis orbicularibus 5-10 mm. diam. centro cinerescentibus v. albescentibus, margine fuscis; pycnidiis epidermide velata vix prominulis dense gregariis, circinantibus, 60-80 μ. diam., coriacellis, contextu indistincto atro, obsolete puberulis et ostiolatis; sporulis non v. vix inæquilateralibus utrinque obtusis, 6-8 × 4, minute biguttulatis, olivaceo-fuligineis.

Hab. ad folia languida Oncidii cujusdam, Ipiranga Moça Brasilia (Usteri).

47. Coniothyrium bulbicola Hollós, Ann. Mus. Nat. Hung. V (1907) 6787 pag. 464. — Pycnidiis dense gregariis v. sparsis, erumpentibus, globulosis, nigris, ostiolo brevi cylindraceo, 170-210 μ. diam.; sporulis sphæroideis, nigris, 8-9,5 μ. diam.

Hab. in bulbis Muscari comosi prope Kecskemét Hungar.

48. Coniothyrium japonicum I. Miyake, Pilze Reispfl. Japan in Journ. 6788

College Agricult. Tokyo II (1910) pag. 256, t. XIV f. 45-46. —

Pycnidiis in maculis pallidis præcipue ad apicem v. marginem foliorum gregarie insidentibus, immersis, brunneis, ostiolo obscurioribus, 130-150 μ. diam.; sporulis brunneis, cylindraceis v. ellipsoideis, rectis v. curvulis, utrinque guttulatis, 6-9 × 2-3.

Hab. in foliis Oryzæ sativæ, Kagoshima Japoniæ (М. Shirai). 49. Coniothyrium anomalum I. Miyake, Pilze Reispfl. Japan in Journ. 6789 College Agricult. Tokyo, II (1910) p. 257, t. XIV, f. 49-50. — Pycnidiis ellipsoideis 100-190 p. diam., 60-110 p. alt., obscure brunneis, in foliis immersis, papillato-prominulis, in maculis pallidis margine nigrescentibus insidentibus; sporophoris filiformibus aequilongis 7,5-10 × 1; sporulis viridi-brunneis, ellipsoideis, ovoideis v. fusoideis, apice obtusiusculis 6-7,5 × 2-3, grosse uniguttulatis.

Hab. in foliis Oryzæ sativæ, Awaji Japonia.

50. Coniothyrium brevisporum I. Miyake, Pilze Reispfl. Japan in Journ. 6790 College Agricult. Tokyo II (1910) p. 256, t. XIV, f. 47-48. — Pycnidiis in foliis congregatis, immersis sed papilliformi-prominulis, maculis pallescentibus insidentibus, pseudoparenchymaticis, obscuris, ellipsoideis, 100-130 μ. diam., 90-100 μ. alt., sporophoris parvis; sporulis ellipsoideis v. ovoideis, obscuris 4-5 × 2,3-3.

Hab. in foliis Oryzæ sativæ, in Japonia et China.

51. Coniothyrium arenarium B. R. S. in Saccardo, Not. Myc. VI, Ann. 6791 Myc. v. III (1905) p. 509. — Pycnidiis sparsis, depresso-globulosis, 300 p. ddiam., epidermide denigrata denique irregulariter fissa velatis, emergentibusque, contextu pseudo-parenchymatico præditis, nigris, nitidulis, non v. vix papillatis; sporulis ovoideis, pallide brunneis, obsolete guttulatis, 9-12 × 5-6; sporophoris validis sed confusis.

Hab. in culmis emortuis Ammophila arenaria, Knocke pr. Heyst, Belgii (Maria Rousseau).

52. Coniothyrium graminum Hollós, Ann. Mus. Nat. Hung. V (1907) 6792 pag. 53. — Pycnidiis epidermide tectis, sparsis, depresso-globosis, fuscis, poro pertusis, 120-140 μ. diam., contextu parenchymatico; sporulis oblongo-ovoideis, initio hyalinis, dein flavidulis, demum fuscis, continuis, 10-14 × 5-7.

Hab. in culmis Phlei phleoidis prope Kecskemét Hungariæ. — A Con. Oryzæ Cav. diversum.

53. Coniothyrium Bambusæ Miyake et Hara, in Bot. Mag. Tokyo 6798 (1910) p. (353) [japonice].

Hab. in Bambusæ sp. in Japonia.

54. Coniothyrium Cargillianum (Linds.) Sacc. et Trott., Microthelia 6794 Cargilliana Linds., Lich. and Fungi Otago, p. 439, t. 31-34 (1867).

— Pycnidiis laxe gregariis, nigris, globoso-conicis papillatis, semiimmersis, ascis nullis; sporulis? subglobosis, minutis, copiosis, 3,7-6 μ. diam. continuis, brunneis.

Hab. parasitice in apotheciis Parmeliæ perforatæ prope Otago in Nova Zelandia. 55. Coniothyrium lichenicola Karst. — Syll. X, p. 268. — var. Buel- 6795 liæ von Keissler, Centralbl. f. Bakter. etc. II Abt., Bd. 27 (1910) p. 209. — A typo differt pycnidiis in thallo non nigrificato vigentibus et sporulis angustioribus bacillaribus (non elongato-ovoideis v. clavatis, nec basi angustatis), 15 × 2,5.

Hab. in thallo Buelliæ disciformis in silva Thüringer Wald dicta, Austria (G. Lettau).

- CONIOTHYRIOPSIS Speg., Myc. Argent. V, p. 361, in Anal. Mus. Nac.
  Buenos Aires XX (1910) (Etym. Coniothyrium, cui affine genus).
  Pycnidia villosa, cetera Coniothyrii.
- Coniothyriopsis Hualaniæ Speg., l. c. p. 361, cum icon. Pyoni-6796 diis primo tectis dein erumpentibus v. denudatis subhemisphæricis 100-150 μ. diam. vix papillulatis coriacellis, subiculo parco olivaceo vestitis, hyphis confertiusculis radiantibus et intertextis tenuiusculis ramulosis septulatis olivaceis, 50-150 × 4 vestitis; sporulis globosis crassiuscule tunicatis, 5-6 μ. diam., eguttulatis, levibus, olivaceis.

Hab. ad ramulos emortuos Hualaniæ colletio idis in præruptis montanis Potrerillos prope Mendoza Reip. Argent. Americæ australis.

- CONIOTHYRINA Syd., in Ann. Mycol. X (1912) p. 233, Coniothyriella Speg., Myc. Arg. V, p. 361, An. Mus. Nac. Buenos Aires (1910), non Coniothyriella Speg., F. Puigg. (1889) n. 439 (Etym Coniothyrium, cui est affine genus). Pycnidia superficialia, membranacea, astoma, irregulariter dehiscentia; sporulæ globosæ fuligineæ leves.
- 1. Coniothyrina agaricola (Speg.) Syd., l. c., Coniothyrella agaricola 6797 Speg., l. c. p. 360, cum icon. Foliis infectis plagulas orbiculares, 3-5 mm. diam., atro-olivaceas granulosas confertas sæpeque confluentes ostendentibus sed maculis destitutis, non v. vix pallescentibus; pycnidiis cuticula insidentibus, 200 μ. diam., glabris, atris, superne centro carbonaceis, laciniatim disruptis, ambitu membranaceis grosse breviterque subprosenchymaticis, inferne tenuissimis, subanhistis, chlorinis; sporulis globosis, 6-8 μ. diam. crassiuscule tunicatis eguttulatis.

Hab. ad folia languida Agaves Salmianæ cultæ in hortis La Plata in Rep. Argentina, Amer. austr.

Syll. fung. XXII (IV-1913)

- FAIRMANIA Sacc., Not. Myc. VII, Ann. Myc. IV (1906) pag. 276 (Etym. a cl. Doct. Ch. E. Fairman, mycologo boreali-americano, generis inventore). Pycnidia superficialia, globoso-papillata, membranaceo-subcarbonacea, nigra, glabra. Sporulæ semilunato-reniformes, continuæ, fuligineæ; sporophora parum evoluta. Præcipue forma peculiari sporulæ, soleæ calcaneum exacte imitantis, ab Epithyrio subgenere Coniothyrii dignoscitur.
- 1. Fairmania singularis Sacc., l. c. p. 276. Pyenidiis gregariis v. 6798 subsparsis, basi adnata superficialibus, globosis, nigris, nitidulis, glabris, 250-300 μ. diam., ostiolo acutiuscule papillato; contextu membranaceo-subcarbonaceo minute celluloso, fuligineo, cellulis 4-5 μ. diam; sporulis semilunato-reniformibus, seu convexo-concavis, 5-7 μ. diam., e latere leniter compressis, 5 μ. cr., hyalinis, mox dilute fuligineis, nucleo crasso, dilutiore, rotundo, e latere compresso; sporophoris tenerrimis, 3-5 × 1, hyalinis.

Hab. in ligno putrescente Fagi americanæ, Lyndonville New York, Amer. bor. (Ch. E. Fairman).

**HARKNESSIA** Cooke — Syll. III p. 320, X p. 269, XI p. 515, XVIII p. 311.

1. Harknessia aggregata Syd., Ann. Mycol. IV (1906) pag. 344. — 6799 Pycnidiis hypophyllis, plerumque dense aggregatis, rotundatis, atris, medio irregulariter apertis, 175-225  $\mu$ . diam., pariete, ut videtur, incompleta; sporulis globosis vel ellipsoideo-globosis, continuis, fuscis,  $7-10^{1}/_{2}$   $\mu$ . diam.

Hab. in foliis languidis Ceanothi velutini, Salt Lake Co. in Utah America bor. (A. O. GARRETT).

- SPHÆROPSIS Lév. Syll. III p. 291, X p. 251, XI p. 511, XIV p. 919, XVI p. 905, XVIII p. 311.
- 1. Sphæropsis citricola Mc. Alpine, Fung. Dis. Citrus p. 82, t. 18, 6800 f. 41-42 (1899). Pycnidiis sparsis v. subgregariis, minutis, nigris, semi-erumpentibus, subglobosis, circ. 130  $\mu$ . diam.; contextu minute celluloso, pallide brunneo; sporulis ellipsoideis, 5,5-7,5  $\times$  4-4,5, brunneis, coacervatis atro-brunneis, tunica crassiuscula.

Hab. in foliis ramulisque Citri Limonis, Victoria, N. S. Wales, Queensland Australiæ. — Ob minutiem pycnidiorum et sporularum potius Coniothyrium.

2. Sphæropsis Dearnessii Sacc et Trott. Sphæropsis Magnolice Ell. et 6801 Dearn. Fungi Columb. (1905) n. 2087, non Magnaghi (1902) — Syll. XVIII, p. 313. — Pycnidiis numerosis, inaequaliter conferte seriatis, cortice nidulantibus, dein prominulo-erumpentibus, intus albidis, basi nigricantibus, 175-200  $\mu$ . diam., excipulo 16  $\mu$ . cr., apice poro 15-18  $\mu$ . diam. apertis; sporulis oblongo-ellipsoideis, 23-26  $\approx$  9-10, brunneis; sporophoris variæ longitudinis, plerumque vero sporulam dimidiam æquantibus.

Hab. in ramis Magnoliæ acuminatæ, socia Valsaria Magnoliæ, Ontario Canada in America boreali.

3. Sphæropsis hippocastanea L Gaja, Flora micol. prov. Padova, 6802 p. 23 (1911) (sunto litogr.). — Pyenidiis sub cortice ramorum sparsis 2-3 proximatis, nigris, erumpentibus, sphæroideis, vix papillatis, poro circulari pertusis, 200-360 μ. diam.; excipulo indistincte et minute pseudoparenchymatico, atro; sporulis oblongo-ellipsoideis, levibus, intus granulosis, fuligineis, 19-22 × 11-13; sporophoris hyalinis, cylindraceis, sporulas subequantibus.

Hab. in ramis emortuis dejectis Æsculi Hippocastani in Horto Botanico Patavino, Ital. bor.

Sphæropsis simillima Peck, Bull. Torr. Bot. Cl. XXXVI (1909) 6803
 p. 337. — Pycnidiis minutis, 0,25-0,33 mm. latis, dense gregariis, raro cæspitosis, erumpentibus, atris; sporulis ellipsoideis v. oblongis, obtusis, 20-25 × 10-12.

Hab. in ramis Aceris saccharini, River Forest Illinois Amer. bor. (E. T. et S. A. Harper). — Sph. fertili valde affinis.

5. Sphæropsis Sarmientoi Speg., Myc. Argent. V, p. 363, in Anal. 6804 Mus. Nac. Buenos Aires XX (1910). — Matrice tota cinerascentialbescente; pycnidiis parenchymate innatis epidermide velatis sæpius hinc inde laxe gregariis, lenticularibus, 150-200 μ. diam., ostiolo impresso pertusis, contextu parenchymatico subindistincto fuligineo; sporophoris bacillaribus, 10 × 2, constipatis, hyalinis, monocarpis; sporulis ellipsoideis v. obovatis utrinque obtusis 15-22 × 8-10, subopace fuligineis non v. leniter inæquilateralibus.

Hab. ad pericarpium fructuum Bulnesiæ Sarmientoi, Sierra Santa Barbara Chaco, in Rep. Argentina Amer. austr.

6. Sphæropsis americana Saccardo, New Fungi New York, Journ. 6805 of Myc. v. XIII (1907) p. 47. — Pycnidiis laxe gregariis, globoso-depressiusculis, peridermio pustulatim elevato tectis et denique ostiolo breviter papillato erumpentibus, 500-700 μ. diam., excipulo crassiusculo, 90-100 μ. cr., minute celluloso, atro-fuligineo, nucleo farcto subolivaceo; sporulis oblongo-ellipsoideis, 28-30 × 9-11, rectis v. leviter in:equilateris ex ochraceo olivaceo-fuligineis, initio gra-

nulosis, dein 2-nucleatis, demum farctis, tunica hyalina crassiuscula obductis; sporophoris paliformibus, 10-15 × 4-5, hyalinis.

Hab. in ramis Tilia americana, Lyndonville, New York. Amer. bor. (Doc. C. E. Fairman). — E subgenere Macroplodiæ.

7. Sphæropsis Lyndonvillæ Sacc., Not. Myc. VII, Ann. Myc. IV (1906) 6806 p. 275. — Pycnidiis dense gregariis, innato-erumpentibus et conspicue prominentibus, globosis, obtusis, subastomis, 0,7-0,9 mm. diam., glabris, nigris; contextu parenchymatico, rufo-fuligineo; sporulis ellipsoideo-oblongis, utrinque rotundatis, sapius curvulis, interdum ad medium lenissime constrictis, 18-20 × 7-9, læte fuligineis, farctis, jugiter continuis (etiam in perfecta maturitate!): sporophoris bacillaribus, tenuibus, 11-13 × 1,5-2, facile secedentibus. hyalinis, intermixtis paraphysibus filiformibus, flexuosis, 30-35 × 1.5-2, hyalinis, facile evanidis.

Hab. in ramulis Hibisci syriaci culti in hortis Lyndonville, Amer. bor. (C. E. FAIRMAN). — Pulchra species; omnino distincta a Sph. Hibisci ob sporulas multo longiores, pycnidia non papillata etc.

8. Sphæropsis evonymella Trav. et Migliardi, Flora micol. prov. Ve- 6807 nezia, p. 13 (1911). - Pycnidiis densiuscule sparsis, prominulis, epidermide lacerata cinctis, globulosis, 200-250 µ. d., atris, poro circulari pertusis; contextu crasso, compacto, nigricante; sporulis ovoideis vel subellipsoideis, haud raro in equilateris, fulvo-fuligineis, intus granuloso-guttulatis, 20-30 v 9-12; sporophoris hyalinis, cylindraceis,  $18-22 \approx 4-5$  fultis.

Hab. in ramulis exaridis Evonymi japonicæ, «S. Elisabetta di Lido», Venetiis, Ital. bor. — A Sphæropsi Evonymi Gabotto, sporulis multo majoribus perfecte distincta species.

9. Sphæropsis cereicola Speg., Myc. Argent. V, pag. 361, in Anal. 6803 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; pycnidiis lenticularibus, 150-180 µ. diam., laxe gregariis, atris, coriacellis. contextu indistincto, ostiolo rotundo parvo impresso perforatis; sporophoris cylindraceis brevissimis, 10-15 × 2-3, dense constipatis, paraphysibus nullis; sporulis ellipsoideo-subobovatis, 24-36 × 11-12, levibus, eguttulatis v. obsolete biguttulatis.

Hab. ad cladodia arida Cerei triangularis, La Plata in Rep. Argentina Amer. austr.

10. Sphæropsis Eriobotryæ Speg., Myc. Argent. V, p. 362, in An. 6809 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; pycnidiis amphigenis sparsis v. laxe hinc inde gregariis, primo epidermide

velatis, dein plus minusve erumpenti-exertis, globoso-depressis, 120-180  $\mu$ . diam., ostiolo imperspicuo, atris, glabris, contextu indistincto; sporulis ellipsoideis utrinque obtuse rotundatis, 18-22  $\approx$  12, fuligineis, levibus, eguttulatis.

Hab. ad folia putrescentia dejecta Eriobotryæ japonicæ in hortis Santa Catalina prope Buenos Aires in Rep. Argentina Amer. austr.

11. Sphæropsis Mespili Hollós, Ann. Mus. Nat. Hungar. VIII (1910) 6810 p. 7. — Pycnidiis gregariis, erumpentibus, globulosis, atris, obtuse papillatis, c. 0,5 mm. diam.; sporulis ellipsoideis v. ovoideis, continuis, atro-olivaceis, intus granulosis et 1-2-guttatis, 24-30 × 12-14; sporophoris bacillaribus, continuis, hyalinis, 16-20 p. long.

Hab. in fructibus præmature exsiccatis sed adhuc pendulis

Mespili germanicæ, Nagy-Körös Hungariæ.

12. Sphæropsis Photiniæ Trav. et Migliardi, Fl. micol. prov. Venezia 6811 p. 13 (1911). — Pycnidiis per totam foliorum superf. dense sparsis, nunc epiphyllis, nunc hypophyllis, sæpe vero amphigenis, epidermidem pustulatim sublevantibus, vix erumpentibus, globulosis, atris, 150-250 μ. diam., plerumque late pertusis, excipulo compacto, fuligineo-atro; sporulis ellipsoideo-oblongis, utrinque rotundatis, fuligineo-umbrinis, 18-24 × 8-12, intus minute granulosis; sporophoris distinctis, crassiuscule cylindraceis, hyalinis, 8-10 × 4-5.

Hab. in foliis siccis et putrescentibus Photiniæ serrulatæ, Dolo, prope Venetias, Ital. bor. — Sporulæ semper continuæ, ergo species a statu juvenili Diplodiæ Photiniæ Speg. sine dubio di-

stincta et genuina Sphæropsis.

13. Sphæropsis Astragali v. Höhn., Ann. Naturhist. Hofmus. Wien, 6812 XX, Heft 4 (1905) Extr. pag. 5. — Pyenidiis erumpentibus, nigris, globosis, minute parenchymaticis et parietibus crassiusculis constitutis, opacis, 250-300 μ. cr., ostiolo indistincto; sporophoris brevibus; sporulis cylindraceis, utrinque rotundatis, hyalinis, demum pallide griseo-brunneis, 22-28 × 8-10.

Hab. in foliis et spinis Astragali sp., in Mt. Erdschias-Dagh, 2700-2900 m. alt., Anatolia.

14. Sphæropsis Spartii Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 6813 p. 480. — Pycnidiis late gregariis, globosis, 200-220 μ. latis, nigris, subepidermicis, demum breviter papilliformi-erumpentibus, contextu grosse parenchymatico, obscure olivaceo-brunneo; sporulis ellipsoideis v. oblongis, 18-22 × 10-12, utrinque rotundatis,

castaneo-brunneis; sporophoris 4-6 µ. cr., cylindraceis; sporulas subæquantibus v. brevioribus, hyalinis.

Hab. in ramis siccis Sartii juncei prope Ulcinj Montenegro.

15. Sphæropsis mimosicola Speg., Myc. Argent. V, p. 362, in Anal. 6814

Mus. Nac. Buenos Aires XX (1910). — Matrice tota sordide infuscata; pycnidiis cortice innatis epidermide tectis plus minusve dense gregariis sed non confluentibus, sublenticularibus, 150-180

μ. diam., minute obsoleteque papillato-ostiolatis, contextu opaco indistincto; sporulis ellipsoideo-cylindraceis, 20-24 × 8-10, rectis v. leniter inæquilateralibus, subopacis, fuligineis, levibus, eguttulatis.

Hab. ad ramos emortuos Mimosæ polycarpæ, La Plata Argent. Amer. austr.

16. Sphæropsis mulinicola Speg, Myc. Argent. V, p. 362, in Anal. 6815 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis sed matrice tota albescenti-subcinerescente; pycnidiis sparsis innatis erumpentibus subhemisphæricis minute ostiolatis, 80-100 μ. diam., atris, contextu parenchymatico olivaceo; sporulis ex ellipsoideo cylindraceis 20 × 6, chlorinis (in speciminibus patagonicis), 14-15 × 7-8, subopace fuligineis (in speciminibus mendozanis).

Hab. ad ramos et folia Mulini proliferi, Cracker-bay, Patagonia et Mulini spinosi pr. Mendoza, Argentina, in America australi.

17. Sphæropsis Salviæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 6816 p. 355, tab. IX, fig. 28. — Pycnidiis semi-immersis, globosis, nigris, apice ostiolo papillato, c. 0,5 mm. diam.; sporulis ellipsoideis, continuis, initio hyalinis, dein flavidulis, demum fuscis, olivaceis, 1-guttatis, 20-26 × 10-12.

Hab. in caulibus siccis Salviæ officinalis, Nagy-Körös Hungariæ.

18. Sphæropsis rumicicola Saccardo, New Fungi New York, Journ. 6817 of Myc. v. XIII (1907) p. 47. — Pycnidiis densiuscule gregariis, subcutaneo-erumpentibus et dein subsuperficialibus, globoso-conoideis, atris, membranaceis, 1-3 mm. diam., glabris; sporulis ellipsoideis, utrinque rotundatis, 22-27 × 11-14, inæqualiter 2-3-guttulatis, fuligineis; sporophoris paliformibus v. sursum leviter inflatis, hyalinis.

Hab. in caulibus emortuis Rumicis sp., Lyndonville, New York, Amer. bor. (Dr. C. E. Fairman). -- Sporulæ jugiter continuæ hinc typica Sphæropsidis species nec Diplodia.

19. Sphæropsis elæagnina Fairm. Ann. Mycol. VIII (1910) p. 326, — 6818

Pycnidiis epidermidem pustulatim elevantibus eamque tandem disrumpentibus, minutis, globosis, ut plurimum applanatis, atris; sporophoris clavatis, hyalinis; sporulis primo hyalinis et granulosis, dein rotundatis, ellipsoideis v. obovatis, utrinque rotundatis, continuis, granulosis, nucleolatis, brunneis olivaceisve 12-23 × 10-12.

Hab. in ramis emortuis Elæagni longipedis cultæ, Lyndonville New York Amer. bor.

20. Sphæropsis pinicola Speg., Myc. Argent. V, pag. 362, in Anal. 6819 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; pycnidiis innatis, obsolete ostiolatis, globosis 250-300 µ. diam., subcarbonaceis, per ætatem totaliter deciduis atque folium foveolatum reliquentibus; sporophoris conoideis vel sublageniformibus, 15 × 6, monocarpis, hyalinis, constipatis, immediate e strato prolifero exsurgentibus; sporulis e cylindraceo subellipsoideis, 35-38 × 16-18, non v. leniter inæquilateralibus, fuligineis.

Hab. ad acus dejectas subputrescentes Pini insignis in horto Villa Elisa Argentina Amer. austr.

21. Sphæropsis cocoina Patouill., Bull. Soc. Myc. Fr. XXII (1906) 6820 p. 59. — Pycnidiis numerosis, sparsis v. longitudinaliter seriatis, atris, nitidulis, erumpentibus, globosis, 400-600 μ. diam., coriaceocarbonaceis; sporulis fusco-atris, ovoideis, continuis, levibus, 18-21 × 8-10.

 $\it Hab.$  in rhachidibus dealbatis foliorum Cocoës nu ci $\it ferx$ , in ins. Hao Polynesia.

22. Sphæropsis Phænicis Alm. et Cam., Revista Agron. IV (1906) 6821 pag. 80, tab. I, fig. 8-9; Bol. Soc. Brot. XXV (19081909), Extr. pag. 45. — Pycnidiis subglobosis v. globoso-depressis, aterrimis, initio epidermide tectis, demum erumpentibus, minutis, punctiformibus, sparsis, sæpe gregariis, 150-250 p. diam.; sporulis ellipsoideis, atro-brunneis, continuis, utrinque rotundatis, medio uninucleatis, 14-20 × 5-6.

Hab. in foliis Phænicis dactyliferæ, in horto bot. Coimbra, Lusitania (A. Moller).

23. Sphæropsis Pandani P. Henn., Hed wigia XLVII (1908) p. 263. 6822 — Pycnidiis innato-erumpentibus, sparse gregariis, rotundato-hemisphæricis v. lenticularibus, atro-nitentibus, apice papillato-perforatis, usque ad 1 mm. diam.; sporulis oblonge ellipsoideis, utrinque obtusis, luteo-brunneis, 20-26 \* 8-11.

Hab. in foliis siccis Pandani levis, Mindanao, Davao, ins. Philippin. (COPELAND).

24. Sphæropsis japonica I. Miyake, Pilze Reispfl. in Journ. College 6828 Agricult. Tokyo, II (1910) p. 257, t. XIV, f. 51-52. — Pycnidiis epidermide tectis, ostiolo verruciformi conspicuo præditis, nigris, parietibus crassis præditis, globosis v. ellipsoideis, 175-200 μ. d.; sporophoris parvis; sporulis unilocularibus granuloso-farctis, ellipsoideis, ovoideis, cylindraceis v. irregularibus, maturis obscuris, 12-17 × 4-6.

Hab. in glumis Oryzæ sativæ, Ika Japoniæ. — A Sph. vaginarum ostiolo majori et sporulis magis elongatis distincta, a Sph. Oryzæ forma sporarum etiam diversa.

- PHÆODOMUS v. Höhn., Fragm. Mykol. IX (1909), pag. 69, in Stzsb. k. Akad. Wiss. Wien, Bd. CXVIII, Abt. I (Etym. phaios obscurus et domus). Stromata globosa, primo immersa dein erumpenti-superficialia, carbonacea, subparenchymatica, verrucoso-rugosa, selerotioidea, unilocularia, astoma, loculo rotundato; sporophora brevissima crassa; sporulæ uniloculares, coloratæ, elongatæ.
- Phæodomus Lauracearum v. Höhn., l. c. pag. 69. Stromatibus 6824 strato 130 μ. cr., hyalino-parenchymatico suffultis, 1 mm. lat., plerumque epiphyllis, in areis 3-10 mm. lat. vix decoloratis insidentibus, erumpentibus, nigris; loculo 800 × 80-120, subhemisphærico; sporulis fumoso-brunneis, ellipsoideis, basi subcuneatis, 20-25 × 10-12.

Hab. in foliis vivis Nectandræ sp. in Brasilia merid. (von Höhnel, Theissen).

- **CAPNODIASTRUM** Speg. Syll. X p. 272, XI p. 516, XIV p. 925, XVI p. 912.
- Capnodiastrum atratum v. Höhnel, Ergebn. Bot. Exp. Südbras. 6825 1901, Denk. k. Ak. d. Wiss. Wien, Bd. LXXXIII (1907) p. 34.

   Maculis nullis; subiculo opace nigro, tenuissimo, ex hyphis intricatis brunneis, 3-5 μ. cr., sine hyphopodiis constituto, irregulariter rotundato, sæpe evanido, margine irregulariter minute radiante, 5-8 mm. lato, epiphyllo; pycnidiis crebris, grosse parenchymaticis, irregulariter rotundatis, tenuiter tunicatis, demum supra late lacinulato-apertis, 50-70 μ. cr.; sporulis in sporophoris crebris hyalinis brevibus insidentibus, paucis, unilocularibus, brunneis, elongato-ellipsoideis v. ovoideis, sæpe subglobosis, infra subangustatis, 12-20 × 6-8,5.

Hab. in foliis coriaceis, Ilha de S. Amaro prope Santos Sao Paulo Brasilia, Amer. bor.

**N/EMOSPH/ERA** Sacc. — Syll. III p. 198, X p. 259, XI p. 514, XVIII p. 315.

1. Næmosphæra Fairmani Sacc., Not. Myc. VII, Ann. Myc. IV (1906) 6826 p. 276. — Pycnidiis laxe gregariis, nunc cortice immersis, nunc subsuperficialibus, globoso-depressis, atris, glabriusculis, 500 μ. d., in ostiolum cylindraceum subæquilongum hirtellum abrupte tenuatis, hine rostratis, rostri setulis fuligineis septatis breviusculis 2-3 μ. cr.; pycnidii contextu firmulo, parenchymatico, fuligineo; sporulis ellipsoideo-oblongis, rectis, 16-17 × 8-8.5, perfecte maturis usque ad 19 μ. longis, diu hyalinis 1-pauciguttatis, maturis læte fuligineis, minute et dense pluri-guttulatis; sporophoris bacillaribus, hyalinis, 14 × 2, facile evanidis, intermixtis paraphysibus filiformibus tortuosis guttulatis, facile mucoso-fluxilibus.

Hab. in areis dealbatis trunci Aceris sp. Lyndonville, N. Y., Amer. bor. (C. E. Fairman). — Subaffinis N. rudi, a qua mox distinguitur pycnidiis multo majoribus, sporulis oblongis etc.

## LEVIEUXIA Fr. — Syll. III p. 321, X p. 271.

Levieuxia Equiseti Hollós, Ann. Mus. Nat. Hung. VI (1908) p. 536. 6827
 — Pycnidiis globulosis, 140-240 μ. diam., longe stipitatis (210-350 × 35-50), atris, virescenti-olivaceis, astomis, superne rimose deciduis; sporulis cylindraceo-fusoideis, continuis, 2-4-guttulatis, olivaceis, 12-16 × 3-3,5; sporophoris filiformibus, hyalinis, 50-120 × 0,5-1.

Hab. in caulibus siccis Equiseti ramosissimi prope Kecskemét Hungaria.

## SIROTHECIUM Karst. — Syll. X, p. 270, XVIII p. 315.

Sirothecium lichenicola (Lindsay) v. Keissler, Œsterr. Bot. Ztschr. 6828
 Bd. 60 (1910) p. 61 — Syll. X, p. 574 (Torula) — var. bisporum von Keissler, Centralbl. f. Bakter. etc. II Abt. Bd. 27 (1910), p. 210. — A typo differt sporulis constanter bicellularibus, 6-8 × 3.
 Hab. in apotheciis Lecanoræ Hagenii, inter Arnstadt et Eikfeld Austriæ (G. Lettau).

CHÆTOMELLA Karst. — Syll. III p. 321, X p. 271, XI p. 516, XIV p. 925, XVI p. 912, XVIII p. 316. 1. Chætomella Gasteriæ Trinchieri, Rend. R. Acc. Sc. Napoli (1909) 6829 fasc. 8-12, Extr. p. 5. — Pycnidiis superficialibus, punctiformibus, gregariis, valde depressis, rarius umbilicatis, astomis, sparse setosis, aterrimis, 257-343 μ. diam., 147-245 μ. altis; excipulo indistincte celluloso, subcarbonaceo, firmulo præditis; setis rectis rigidisque, septatis, apice acutatis, olivaceis, 73-122 μ. longis, 4,5-7 μ. latis; sporophoris filiformibus, flexuosis, irregulariter guttulatis, apice rotundatis, hyalinis, 53-61 μ. longis, 2 μ. latis; sporulis copiosissimis, bacillaribus, utrinque rotundatis vel subfusiformibus, rectis, continuis, 2-3-4-guttulatis, olivaceis, quandoque hyalinis, 9.5-19 × 2.

Hab. in scapo exsiccato Gasteriæ fusco-punctatæ in Horto botanico neapolitano Ital. austr. (Trinchieri). — Accedit ad Ch. atram Fuck., a qua tamen satis distinguitur pycnidiorum forma, colore et contextu, setarum basidiorumque mensuris, sporularum forma, magnitudine et sæpe etiam colore.

CLADOCHÆTE Sacc. in Ann. Mycol. X (1912) p. 318 (Etym. clados ramus et chæte seta), Chætomium Wint. ex p., Chætomella Cooke, Oudem. etc. ex p. — Pycnidia superficialia globulosa, membranacea, subastoma (chætomioidea!) setosa; setis pluries divergenti- v. arcuato-ramosis, brunneis, intermixtis sæpius aliis indivisis, cuspidatis, nigricantibus. Sporulæ globoso-ovoideæ, continuæ, brunneæ, sessiles v. subsessiles, substrato tenuissime celluloso, hyalino insertæ. — Genus habitu prorsus Chætomii, cujus verisimiliter efficit status pycnidicos.

1. Cladochæte setosa (Wint.) Sacc., Chætomium setosum Wint. — 6880 Syll. IX, p. 484 — Chætomella Cavallii Mattirolo in Duca degli Abruzzi, Il Ruvenzori I, p. 3, t. III, f. 1-3 (extr.). — An huc spectat Trichothecium clavatum Letell. Fig. Champ. Suppl. à Bulliard, t. 685?

Hab. in foliis dejectis udis Fagi silvaticæ, Conegliano Ital. bor. (G. Cuboni), in charta uda in silva Nakitava, Ruvenzori, 2652 m. alt. Afr. (Doct. Cavalli). — Perfecte congruit cum diagnosi Wint. l. c. et icone Mattirolii l. c. et æque ascos nullos ostendit. Sporulæ copiosissimæ ovato-ellipsoideæ, brunneæ, leves, 4,5-6 × 2,5-3; setæ biformes: simplices rigidæ, cuspidatæ, divergentes, 250-300 × 4 (basi), obscure septatæ subinde demum asperulæ; ramosæ simplicibus dimidio breviores et copiosiores, ramis iterato furcatis et eximie incurvis, ubique asperulis præditæ; hyphæ myceliales (rhi-

zinæ) copiosæ flexuoso-ramosæ, 2,5 µ. cr., brunneolæ, interdum coalescentes. Area speciei distributionis latissima: Patagonia, Africa centr., Italia! — Ad hoc genus quoque referendæ sunt: Cladochæte furcata (Cooke et M.) Sacc. = Chætomella furcata C. et M. — Syll. X, p. 271 — et Cladochæte horrida (Oud.) Sacc. = Chætomella horrida Oud. — Syll. XVIII, p. 316.

**HAPLOSPORELLA** Speg. — Syll. III p. 323, X p. 273, XI p. 516, XIV p. 925, XVI p. 912, XVIII p. 316.

Haplosporella ruscigena Bubák, Bull. Herb. Boiss., 2 sér., VI 6831 (1906) p. 481. — Pycnidiis in greges circa 300 μ. diam. stromatiformiter confertis, globosis, sæpe lateraliter confertis, 90-150 μ. latis, nigris, contextu firmo 20 μ. circ. crasso, flavo-brunneo, supra obscure castaneo-brunneo; sporulis ex elongato fusoideis, 9-13 × 3,5-4,5, rectis v. curvulis, apice rotundatis, 2-3-guttulatis, olivaceo-brunneis; sporophoris cylindraceis 6-8 × 2, hyalinis.

Hab. in cladodiis emortuis Rusci aculeati prope Ulcinj Montenegro.

2. Haplosporella rubicola Maire, Bull. Soc. Bot. Franc. LIV (1907) 6832 p. CLXXXIX. — Pycnidiis supra stroma nigrum botryose congestis, nigris, nitidis, apice ostiolo papillato pertusis, 150-300 μ. diam.; sporulis ovoideis v. subglobosis, levibus, dilute brunneolis, 3-3,5 × 2,5-3; sporophoris brevissimis.

Hab. in caulibus emortuis Rubi sp., inter Tlemcen et Hafir Africæ bor.

3. Haplosporella missouriensis Bubák, Journ. of Mycol. XII (1906) 6833 p. 54. — Stromatibus caulicolis late gregariis, primum subepidermoideis dein prominentibus, depresse pulvinatis, ½-²/₃ mm. latis, nigris, plus v. minus nitidis, contextu parenchymatico, intus flavidulo extus obscure brunneo; loculis paucis uniseriatis, evolutis, quandoque etiam inevolutis irregularibus; sporulis elongatis v. cylindraceis, sæpe subcurvulis v. medio biscoctiformi-constrictis, 13-18 × 4,5-7, castaneo-brunneis, medio guttula elongata præditis; sporophoris filiformibus, hine inde curvulis, 76-80 × 2, apice plerumque expansis, hyalinis.

Hab. in ramis emortuis Persicæ vulgaris, Emma Salina Co. Missouri, Amer. bor. (C. H. Demetrio).

4. Haplosporella Calycanthi Fairm. Ann. Mycol. VIII (1910) p. 322. 6884 — Pycnidiis minutis, atris, erumpentibus, approximatis; sporulis

oblongo-cylindraceis, utrinque rotundatis, granulosis, guttulatis, brunneis,  $15-30 \times 10-12$ .

Hab. in ramis emortuis Calycanthi floridi culti, Lyndon-ville New York Amer. bor.

- 5. Haplosporella commixta Peck in Barth. Fgi. Columb. 1905, n. 2031, 6835 et in Bull. Torr. Bot. Cl. XXXIII (1906) pag. 219. Pycnidiis singulis v. confertis, numerosis, tenuibus, globosis, erumpentibus, nigris; sporulis late ellipsoideis v. obovatis, primum hyalinis dein maturis luce transmissa obscure brunneis, 24-32 × 16-20.
  - Hab. in ligno et ramis emortuis Ulmi fulvæ, Stockton Kansas Amer. bor. (Bartholomew).
- 6. Haplosporella camerunensis P. Henn. in Engl. Jahrb. XXXVIII 6836 (1905) pag. 128. Stromatibus sparse v. gregarie erumpentibus stepe confluentibus, rotundato-pulvinatis v. lenticularibus, discoideo-applanatis, 1-1,5 mm. diam., gyroso-rugulosis, subcarbonaceo-atris, intus subhyalinis; pycnidiis immersis; sporophoris subulatis v. filiformibus 6-12 × 2,5-3, hyalinis; sporulis ovoideis v. ellipsoideis, diutius hyalinis, dein castaneo-atris, continuis, 12-18 × 7-11.

 $\it Hab.$  in ramis corticatis arboris cujusdam, Kamerun Africae ( $\it Zenkee$ ).

CYTOPLEA Bizz. et Sacc. — Syll. III p. 325, XI p. 516.

1. Cytoplea badia Miyake et Hara in Bot. Mag. Tokyo (1910) p. (352) 6887 [japonice].

Hab. in Bambusæ sp. in Japonia.

- 2. Cytoplea propullulans (Peck) Starb. Stud. Fr. Herb. p. 82. Ita 6838 vocanda Sphæropsis propullulans Peck Syll. III, p. 294.
- READERIELLA Syd., An. Myc. VI (1908) p. 484 (Etym. a cl. F. M. Reader, fungi detectore). Stromata minuta, phyllachoroidea, epidermide tecta, atra, intus minute plurilocularia; sporulæ ambitu trigonæ, continuæ, fuscæ. Ob sporularum formam singularem et stromatum anularem dispositionem prædistinctum genus.
- 1. Readeriella mirabilis Syd., l. c. Stromatibus amphigenis, ma-6839 culis orbicularibus ½-1 cm., diam., obscure brunneis insidentibus, in circulos amœne formatos et concentrice ordinatos dispositis, minutis, ca. ½-½ mm. diam., intus minute plurilocularibus, atris, epidermide elevata diu (vel semper?) tectis, phyllachoroideis; sporulis ambitu trigonis, continuis, fuscis, 9-11 μ. diam.

Hab. in foliis Eucalypti capitellate, County of Follett, Victoria (Reader).

## Sect. 3. Phæodidymæ

**DIPLODIA** Fr. — Syll. III p. 329, X p. 275, XI p. 518, XIV p. 927, XVI p. 915, XVIII p. 319.

1. Diplodia hortensis Saccardo New Fungi New York, Journ. of Myc. v. 6840 XIII (1907) p. 47. — Pycnidiis gregariis, subcutaneo-erumpentibus, globosis, breve papillatis, nigris, 300-400 p. diam.; sporulis ellipsoideis, utrinque rotundatis, medio septatis, non constrictis, 19-20 × 11 fuligineis; sporophoris fasciculatis, paliformibus, 8-10 × 5, hyalinis.

Hab. in caulibus Clematidis paniculata culta, Lyndonville, N. Y., Amer. bor. (Dr. C. E. FAIRMAN). — A Dipl. herbarum dignoscitur pycnidiis regularibus, papillatis, sporulis brevioribus, haud constrictis.

2. Diplodia berberidina Sacc., Diplodia Berberidis Sacc., Ann. Mycol. 6841 VI (1908) p. 566, non Rota-Rossi (cfr. sp. seq.). — Pycnidiis gregariis, subcutaneo-erumpentibus, globosis, 300 μ. diam., apice obtusis, nigris; sporulis obovato ellipsoideis, 22-24 × 8,5, diu continuis, demum 1-septatis, non constrictis, fuligineis; sporophoris filiformibus, sporula paullo brevioribus, hyalinis.

Hab. in ramulis corticatis emortuis Berberidis sp. cultæ, Lyndonville, N. Y, Amer. bor. (FAIRMAN). — A Dipl. Berberidis Rota-Rossi, paullo anteriore, differt pycnidiis globosis, nec depressis, sporulis paullo longioribus, septo non constrictu etc.

3. Diplodia Berberidis Rota-Rossi, III Contr. Mic. Bergamo, Atti 6842 R. Ist. Bot. Pavia ser. II v. XIII (1907) p. 202. — Pycnidiis gregariis, epidermide tectis dein semi-erumpentibus, globoso-depressis, minutis, 100-180 μ. diam.; sporulis oblongis, fuscis, 1-septatis, vix constrictis, biguttulatis, 18-22 × 8-10.

Hab. in ramulis corticatis Berberidis vulgaris, Parve Bergamo, Ital. bor.

4. Diplodia Tulipiferæ Diedicke, Ann. Mycol. IV (1906) p. 414. — 6843 Pycnidiis irregulariter sparsis v. in series elongatas ramum late obtegentibus, cortice immersis, peridermio arcte adnatis, rotundatis v. subellipsoideis, nigris, leniter e cortice erumpentibus; sporophoris brevibus, hyalinis, apice tenuioribus; sporidiis, primum

hyalinis, dein pallide demum obscure-brunneis, bilocularibus, medio plus v. minus constrictis, elongatis, apice rotundatis, 20-24 × 8-10, quandoque etiam profunde constrictis et loculis tunc subrotundatis.

Hab. in ramis siccis Liriodendri tulipiferæ, prope Halle Germania (A. Schroeter).

5. Diplodia zebrina Petch, Ann. Roy. Bot. Gard. Peradenyia III, Pt. 6844 I (1906) p. 6. — Pycnidiis nigris, confertis, erumpentibus, 0,25 mm. diam.; sporulis olivaceis, ellipsoideis, 25-30 × 13-15, teniolis pallidis angustis longitudinaliter striatis.

Hab. in fructibus emortuis Heveæ brasiliensis et in ramulis emortuis Theæ viridis Ceylon.

6. Diplodia rapax Massee, Kew Bull. (1910) pag. 3, f. 13-14 et ap. 6845 Bancroft Handb. Diseas. West Ind. Plants (1901) p. 40, Ridley, Bull. of the Straits and Federates Malay States VIII, (1909) p. 310. — Pycnidiis gregaris, 3-7, globosis, nigris demum erumpentibus, glabris, 160-180 μ. diam., minute ostiolatis; sporulis ellipsoideis, utrinque obtusis, medio uniseptatis, non constrictis, fuligineis, 32-35 × 15-16.

Hab. in ramis Heveæ brasiliensis, in America et Africa trop.

7. Diplodia Boldoæ Speg., Fungi Chilenses (1910) p. 158, cum icon. 6846 — Maculis nullis; pycnidiis amphigenis, parenchymate innatis, epidermide tectis, subglobosis, 150-180 μ. diam., atris, subcarbonaceis, minute ostiolato-perforatis; sporulis ex ellipsoideo obovatis, 24-26 × 10-12, opace fuligineis, medio 1-septatis, non constrictis; sporophoris conoideis, hyalinis, 10-14 × 3-4.

Hab. in foliis dejectis putrescentibus Boldoæ fragrantis, prope Talcahuano, Chile Amer. austr.

8. Diplodia perseana Delacroix in Bull. trim. Soc. Myc. de France, 6847 vol. XXI (1905) p. 201, fig. XIII. — Forma conidica e genere Stilbum: (Stilbum perseanum S. et T.): synnematibus erectis, rubro-coccineis, summo albido rotundato vixque dilatato v. ovoideocapitato; hyphis septatis, parallelis, stricte connexis; conidiis hyalinis, rotundatis, 3 μ. diam., summo sterigmatum hyalinorum cylindraceorum 10-15 × 3-4 solitariis. — Forma pycnidica e gen. Diplodia: pycnidiis brunneis, immersis, ostiolo prominente, 140 × 112; sporulis hyalinis, dein brunneolis, demum brunneo-atris uniseptatis, 18 × 9, ovalibus; sporophoris brevibus 3 × 2.

Hab. in cotyledonibus Perseæ gratissimæ, Congo Africæ (Dybowski).

9. Diplodia samararum Sacc. Mycoth. Ven. Cent. XIV, n. 1396 (1879). 6848 - Pycnidiis innato-emergentibus, globoso-conicis, 1/4 mm. diam., nigris, contextu crasse parenchymatico, fuligineo-violaceo; sporulis oblongis, 1-septatis, non constrictis, 25 × 15, fuligneis; pedicello hyalino.

Hab. in samaris dejectis Aceris platanoidis in horto botanico Patavino.

10. Diplodia Yerbæ Speg, Anal. Mus. Nac. Buenos Aires t. XVII, 6849 (1908) p. 135. — Pycnidiis primo cortice tectis eague dein secedente denudatis atque in ligno superficialibus, sparsis v. hinc inde glomerulatis, subglobosis v. depressis, 150-180 µ. diam., nigris, glabris, valide papillulato-ostiolatis, contextu opaco indistincto: sporophoris sublanceolatis 15 × 5, paraphysibus filiformibus elongatis simplicibus concoloribus 40-60 × 1-2 commixtis; sporulis acrogenis utrinque obtusis 24-30 × 10-15, quandoque ellipsoideis quandoque leniter subobovatis, rectis v. modice inæquilateralibus. continuis v. sæpius uniseptatis, ad septum non v. lenissime constrictis, subopacis, fuligineis, eguttulatis.

Hab. vulgata ubique ad ramulos emortuos subputrescentes Ilicis paraguariensis, Misiones Reip. Argentinæ.

11. Diplodia Trevoæ Speg., Fungi Chilenses (1910) p. 158. — Pyc- 6850 nidiis sparsis v. laxe gregariis, primo cortice tectis, eaque secedente plus minusve denudato-superficialibus, e lenticulari hemisphaericis, 150-250 μ. diam., atris, glabris, carbonaceis, 30-32 × 12-20, 1-septato-constrictulis, sporophoris cylindraceis hyalinis, 10 × 3-4, fultis.

Hab, in ramis emortuis siccis Trevoæ trinervis in collibus Batuco et San Bernardo, prope Santiago Chile Amer austr.

12. Diplodia Mangiferæ Koord., Botan. Untersuch Java (1907) p. 210. 6851 — Pycnidiis sparsis, globoso-depressis, 200-300 μ. diam. et 70-100 μ. altis, atris, tectis, dein epidermide fissa suberumpentibus, obtuse papillatis; sporulis oblongis, initio continuis hyalinis, tandem medio 1-septatis, fuscis 26-28 × 12-14; sporophoris 7-13 × 3-4 cylindraceis, hyalinis; paraphysibus hyalinis 35 × 2 intermixtis.

Hab. in cortice Mangifer a indica in Purworedjo prov. Kedu in insula Java (Koorders).

13. Diplodia Hibisci P. Henn., Hedwigia XLVII (1908) p. 263. — 6852 Pycnidiis gregarie suberumpentibus, subglobulosis, atro-castaneis;

sporulis ellipsoideis v. ovoideis, utrinque obtusis, atris, 1-septatis haud constrictis,  $16-22 \times 8-10$ .

Hab. in ramis emortuis Hibisci rosæ-sinensis L. in societate Megalonectriæ pseudotrichiæ, Manila Ins. Philippin. (Merrill).

14. Diplodia natalensis Pole Evans in Transvaal Dept. of Agricult. 6858 Sc. Bull. n. 4 (1910) p. 15, c. ic. — Pycnidiis sparsis, primo epidermide tectis, dein erumpentibus, atris, membranaceis, subglobosis, papillatis, 150-180 μ. diam.; sporulis ellipticis, 1-septatis, non constrictis, obscure coloratis, 24 × 15, exosporio striato.

Hab. in fructibus Citri qui nigro-maculantur et vitiantur, Natal Africæ.

15. Diplodia Phellodendri H. Zimmermann in Verhandl. naturf. Ve-6854 rein, Brünn XLVII (1908-1909) p. 40 (extr.). — Pycnidiis sparsis, corticolis, emergentibus et erumpentibus, subglobosis; sporulis ab initio cylindraceis, decoloribus, in ætate provecta cylindraceis v. ovoideis, fusco-brunneis, subopacis, 24-36 × 8; sporophoris 10 × 1, decoloribus.

Hab. in ramulis siccis Phellodendri amurensis in horto Eisgrubensi Austriæ.

16. Diplodia Cerei-triangularis Speg., Myc. Argent. V, p. 370, in 6855 An. Mus. Nac. Buenos Aires XX (1910). — Matrice tota albocinerescente; pycnidiis densiuscule gregariis sed omnino discretis, epidermide tectis eaque adnatis, lenticularibus, 100-120 μ. diam., obsolete ostiolatis, atris, subcarbonaceis, contextu opaco indistincto; sporulis ellipsoideis v. lenissime obovatis. 22 24 × 12-13, prope medium uniseptatis, ad septum non v. vix constrictis, fuligineis.

Hab. ad ramos emortuos putrescentesque Cerei triangularis, in hortis La Plata Reip. Argentinæ Amer. Austr.

17. Diplodia Pteleæ Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 6856 359. — Pycnidiis epidermide tectis, sparsis, globosis, ostiolo papillato conico erumpentibus, atris, carbonaceis, 350-450 μ. diam.; sporulis ellipsoideis, initio continuis, hyalinis, dein medio 1-septatis, constrinctis, flavis, demum fuscis, 20-24 × 10-12.

Hab. in ramis siccis Pteleæ trifoliatæ, Kecskemét et Nagy-Körös Hungariæ.

18. Diplodia platanicola Sacc. in Ann. Mycol. VI (1908) p. 562. — 6857 Pycnidiis late dense gregariis, rima peridermii plerumque longitudinali erumpentibus, globulosis, nigris, ½ mm. diam., obsolete

papillatis; sporulis ellipsoideis, 1-septatis, leniter constrictis, 16-20 × 8-11, nitide fuligineis, 2-guttatis.

Hab. in ramis emortuis Platani orientalis pr. Tamsel Germaniæ (P. Vogel).

19. Diplodia Hamamelidis Fairm. in Peck New York St. Mus. Bull. 6858 139 (1909) p. 22. — Peritheciis gregariis, minutis, depresso-globosis, nigris, primum epidermide tectis, dein erumpentibus; sporulis primum hyalinis dein coloratis, diu continuis, denique uniseptatis, 20-28 × 10-12.

Hab. in ramis emortuis Hamamelidis virginianæ, Lyndonville Amer. bor. (C. E. FAIRMAN).

20. Diplodia Diospyri (Schw.) Sacc. et Trav. Syll. XIX p. 610. — 6859 Sphæria Diospyri Schw. ap. Currey, Trans. Linn. Soc. XXII, (1858) p. 273, t. 47, f. 103. — Pyenidiis . . . . . ; sporulis ovato-oblongis, utrinque rotundatis, atro-brunneis, 1-septatis, leviter constrictis, 16-18 μ. long.

Hab. in ramis Diospyri sp. in America bor. — Cl. Currey refert ascos non invenisse; tamen Sphæria Diospyri Schw. Syn. Car. n. 57 saltem pro parte, teste ill. Notarisio ad Valsariam spectat. Cfr. Syll. II, p. 743.

21. Diplodia Phlæospora Sacc. et Trav. Syll. XIX p. 613. — Phlæo-6860 spora Diplodia Schulz. v. Mügg. in Verh. zool-bot. Ges. Wien, (1871) p. 1231, t. 13, f. 10. — Pyenidiis subcutaneis et vix erumpentibus, prominulis, globoso-conoideis, nigris, 300-600 μ. diam.; sporulis ovato-ellipsoideis, utrinque rotundatis, constricto-didymis, 17-22 × 6-12, loculo inferiore sæpe paullo minore, fuligineis; sporophoris paliformibus, brevissimis.

 $\it Hab.$  in ramis corticatis Cydoniæ vulgaris in Hungaria. Ex fig.  $\it b$  videtur pycnidii contextus extus niger, intus albo-cellulosus, crassiusculus.

22. Diplodia Mespili Hollós, Ann. Mus. Nat. Hungar. VIII (1910) 6861 p. 7. — Pycnidiis sparsis, epidermide tectis, erumpentibus, globulosis, nigris, c. 0.5 mm. diam.; sporulis oblongo-ellipsoideis, medio 1-septatis, non v. vix constrictis, fuligineis, 22-26 × 10-12; sporophoris clavatis, hyalinis, 10-12 μ. long.

Hab. in ramulis emortuis Mespili germanicæ, Nagy-Körös Hungariæ.

23. Diplodia mespilina L. Gaja, Flora Micol. provinc. Padova (1911) p. 6862
24 (sunto litogr.) — Pycnidiis gregariis vel solitariis, atris, lenticularibus, breviter papillatis, erumpentibus, 250-300 µ. diam.;

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sporulis 1-septatis, subcylindraceis, ad apicem rotundatis, et ad septa constrictis, aureo-fulvis, intus granulosis, 23-24 × 7-8; sporophoris hyalinis, cylindraceis brevibus.

Hab. in ramis corticatis Mespili germanicæ in viridario Convictus Universitariorum Patavii Ital. bor.

24. Diplodia Griffoni Sacc. et Trav. — Syll. XX p. 1228 — Diplo-6868 diæ sp. Griffon et Maublanc in Bull. Soc. Mycol. France (1910) p. 314. t. XV et t. XVI, f. 1-4, 7, 8, 10. — Pycnidiis parasiticis majusculis, solitariis v. aggregatis, simplicibus v. in loculos divisis; sporulis diu hyalinis crasse tunicatis, elliptico-oblongis, subirregularibus, intus granulosis 20-30 × 10-13, dein ovoideo-ellipsoideis, 1-septatis 22-25 × 10-13, perfecte levibus, fuligineis.

Hab. ad ramos corticatos Piri communis et P. Mali (quibus noxia) in Gallia. — A Sphæropside Malorum et Sph. Pseudo-Diplodia sporulis denique 1-septatis, levibus, a Diplodia maura sporulis ellipsoideis non elongatis, levibus non granulosis, a Botryodiplodia Mali sporulis non piriformibus et paullo majoribus imprimis dignoseitur.

25. Diplodia Rhodotypi Hollós, Növényt. Közlemén. VI (1907) Extr. 6864 p. 7. — Pycnidiis epidermide tectis, dense gregariis, erumpentibus, globoso-depressis, apice ostiolo minuto præditis, nigris, c. 0,5 mm. diam.; sporulis oblongo-ellipsoideis, medio 1-septatis, leviter constrictis, fuscis, 20-24 × 10-14.

Hab. in ramis siccis Rhodotypi kerrioidis, Kecskemét Hungariæ.

26. Diplodia Arachidis Petch, Ann. Roy. Bot. Gard. Pevadenyia III, 6865 Pt. I (1906) p. 6. — Pycnidiis globosis, primum immersis, prominentibus, deinde erumpentibus, nigris, gregariis, 0,25 mm. diam.; sporulis ellipsoideis, uniseptatis, atro-brunneis, 17-25 × 10-12, pariete et septo crasso.

Hab. in caulibus Arachidis hypogeæ, ins. Ceylon.

27. Diplodia Siliquastri West. — Sacc. Syll. III, p. 336 — var. legu-6866 minum Hollós, Ann. Mus. Nat. Hung. V (1907) p. 53. — Pycnidiis epidermide tectis, sparsis, erumpentibus, depresso-globosis, nigris, poro pertusis, 280-350 μ. diam.; sporulis ellipsoideis, initio continuis, hyalínis, dein flavidulis, medio 1-septatis, non v. vix constrictis, demum fuscis, biguttulatis, 16-24 × 8-12.

Hab. in leguminibus Cercidis Siliquastri, Kecskemét Hungariæ.

28. Diplodia Onobrychidis Hollós, Növényt. Közlemén VI (1907) 6867

Extr. p. 7. — Pycnidiis epidermide tectis, dense gregariis, erumpentibus, globoso-depressis, nigris,  $350-400~\mu$ . diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, initio continuis et hyalinis, dein flavidulis, demum fuscis, medio 1-septatis, constrictis,  $24-26 \approx 10-12$ .

Hab. in caulibus siccis Onobrychidis sativæ, prope Kecskemét Hungariæ.

29. **Diplodia Vignæ** Saccardo, Fungi aliquot africani, Bol. Soc. Bro-6868 teriana v. XXI (1904-1905) p. 7. — Pycnidiis gregariis, erumpentibus, e globoso hemisphæricis, glabris, nitidulis, duriusculis, breve papillatis; contextu grosse celluloso, fuligineo; sporulis ovato-ellipsoideis, utrinque obtusulis, 22-25 × 10-11,5, diu hyalinis, farctis; sporophoris bacillaribus, 12-15 × 2,5-3,5, hyalinis.

Hab. in caulibus emortuis Vignæ sinensis, Lourenco Marques Africaæ orient. (A. Moller). — Sporulæ nondum septatæ et coloratæ visæ quia adhuc immaturæ.

30. Diplodia Coffeæ P. Henn., Mission E. Laurent, fasc. III (1907) p. 317. 6869 — Pycnidiis subcutaneo-erumpentibus, sparsis v. subgregariis atrocarbonaceis, subpapillatis c. 200 μ. diam., sporulis ellipsoideis utrinque rotundatis, atro-castaneis, medio 1-septatis, haud constrictis, 17-23 × 10-14.

Hab. in ramis corticatis emortuis Coffeæ, prope Bolombo Africæ. — D. coffeicolæ Zimm. affinis sed sporulis distincta.

31. Diplodia Cinchonæ Koord., Botan. Untersuch. Java (1907) p. 209. 6870 — Pycnidiis gregariis, globoso-depressis, obtusis, subcutaneis, ostiolo vix erumpente, <sup>1</sup>/<sub>3</sub> mm. diam.; sporulis oblongis, medio uniseptatis, haud constrictis, 28-33 × 12-14,5, utrinque rotundatis, fuscis, sporophoris sporulâ fere duplo brevioribus, paraphysibus filiformibus intermixtis.

Hab. in ramis Cinchon a succirubra in M. Sendoro prope Auggronggondok prov. Kedu Java (Koorders).

32. Diplodia Celottiana Sacc. in Ann. Mycol. X (1912) p. 319. — 6871 Pycnidiis subcutaneo-erumpentibus, depresse globosis, obsolete pertusis, papillatis, 300 μ. diam., nigris, contextu grosse celluloso, fuligineo; sporulis brevissime stipitatis, oblongo-ellipsoideis, utrinque rotundatis, fuligineis, 2-guttulatis, 20-22 × 8-9.

Hab. in caulibus emortuis Vincæ minoris, Conegliano, It. bor. (Celotti). — A Dipl. vincicola Brun. (in Vinca majore) videtur distincta ostiolo non papillato, pycnidiis depressis, sporulis angustioribus (non 22-35 × 12-15).

33. Diplodia hungarica Bubák, Beitr. Pilzfl. Ung., in Növénytani 6872 Közlemenyek (1907) Heft. 4, Extr. p. 37. — Maculis rotundatis v. ellipsoideis, coriaceis, definitis, brunneo-marginatis, 4-6 mm. latis, sparsis; pycnidiis epiphyllis, globosis, 180-220 μ. latis, subepidermicis, rostello cylindraceo 45 × 50 erumpentibus; sporophoris cylindraceis, 18-26 × 9-11, brunneo-nigris, utrinque rotundatis, medio transverse uniseptatis, non v. leniter constrictis; sporophoris 6-12 μ. long., supra expansis, hyalinis, multiguttulatis.

Hab. in foliis vivis Fraxini Orni in M. Domugled, prope

Herkulesfürdö Hungariæ.

34. Diplodia jasminicola Sacc. in Ann. Mycol. IX (1911) p. 251. — 6878 Pycnidiis subcutaneo-erumpentibus, gregariis, atris, minutis, 250-300 μ. diam., obtuse papillatis; sporulis oblongo-ellipsoideis, utrinque rotundatis, initio hyalinis continuis, demum constricto-1-septatis, 20-22 × 9-11; sporophoris brevibus, crassiusculis, 5-6 × 4, hyalinis.

Hab. in ramulis morientibus Jasmini officinalis, Villesur-Ante Galliæ (P. Hariot). — A Dipl. Jasmini differt imprimis pycnidiis dimidio minoribus, sed speciem quam edidi ut D. Jasmini in Myc. Ven. n. 337 in Jasmino fruticante, Patavii et in eadem matrice ex Conegliano communicavit 1876 el. Spegazzini ad hanc D. jasminicolam spectant. E contra specimina lecta Parmæ a prof. Passerini et edita in Rabenh. F. Eur. n. 2247 ex parte ad veram D. Jasmini West. pertinent.

35. Diplodia Forsythiæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 6874 p. 359. — Pycnidiis epidermide tectis, erumpentibus, depressoglobosis, nigris, apice ostiolo papillato perforatis, 210-280 μ. diam., contextu parenchymatico; sporulis ellipsoideis, medio 1-septatis, leniter constrictis, olivaceo-brunneis, 22-26 × 9-11.

Hab. in ramulis siccis Forsythiæ suspensæ, Nagy-Körös Hungariæ.

36. Diplodia Leptodactyli Earle, Bull. of. the New York Bot. Gard. <sup>6875</sup> (1904) p. 295. — Pycnidiis sparsis, immersis, dein erumpentibus, nigris, subglobosis, non collabascentibus, 200-225 μ., contextu molli membranaceo, cellulis regularibus, 8-10 μ. diam., ostiolo inconspicuo; sporulis brunneis, ellipsoideis, uniseptatis, subconstrictis, apice obtuse rotundatis, circ. 14 × 8.

Hab. in ramis emortuis Leptodactyli squarrosi, Clear Creek Canon, prope Carson, Nevada Amer. bor. (BAKER).

37. Diplodia Gmelinæ P. Henn., Hedwgia XLVII (1908) p. 263. 6876

— Pycnidiis erumpentibus, globulosis, atris; sporulis ellipsoideis v. ovoideis, obtusis, intus granulatis, atro-castaneis, 1-septatis, haud constrictis,  $18-24 \approx 10-13$ .

Hab. in ramulis Gmelinæ villosæ in societate Coniothyrii Gmelinæ, Mindanao, Davao Ins. Philippin. (COPELAND).

38. Diplodia Weigeliæ Sace. Ann. Mycol. VI (1908) p. 565. — Pye-6877 nidiis gregariis, subcutaneo-erumpentibus, globoso-conoideis, prominulis, nigris, vix <sup>1</sup>/<sub>3</sub> mm. diam.; sporulis ellipsoideis, 1-septatis, non v. vix constrictis, 23-27 × 10, fuligineis.

Hab. in ramulis emortuis Weigelia rosea cultae, Lyndon-ville N. Y. Amer. bor. (FAIRMAN). — A Dipl. Lonicera et Dipl. Symphoricarpi satis diversa.

39. Diplodia Baccharidis Hollós, Nóvényt. Közlemén VI (1907) Extr. 6878 p. 7. — Pycnidiis epidermide tectis, dense gregariis, seriatim digestis, erumpentibus, globoso-depressis, apice ostiolo minuto præditis, carbonaceis, c. 700 μ. diam.; sporulis oblongo-ellipsoideis, initio continuis et hyalinis, dein medio 1-septatis, non v. constrictis, flavis, demum fuscis, 18-22 × 9-10.

Hab. in ramis siccis Baccharidis halimifoliæ, Kecskemét Hungariæ.

40. Diplodia polygonicola Hollós, Nóvényt. Közlemén. VI (1907) 6879 Extr. p. 7. — Pycnidiis epidermide tectis, dense gregariis, erumpentibus, demum superficialibus, globoso-depressis, apice ostiolo minuto præditis, carbonaceis, c. 600 μ. diam.; sporulis oblongo-ellipsoideis, initio continuis et hyalinis dein flavidulis, demum fuscis, medio 1-septatis, valde v. non constrictis, 20-26 × 10-12.

Hab. in caulibus siccis Polygoni lanigeri, Kecskemét Hungaria. — A Diplodia Polygoni Ruhl. sporulis majoribus diversa.

41. Diplodia Betæ A. Potebnia Ann. Mycol. VIII (1910) p. 62. 6880 — Pycnidiis 160-200 μ. diam., subimmersis, obscure brunneis, poro usque ad 30 μ. lato præditis; sporulis pallide brunneis v. hyalinis, 13-16 \* 4-7, septatis, ibique non constrictis, quando biseptatis et tunc usque ad 20 μ. long.

Hab. in foliis hibernantibus Bette vulgaris cultæ a Cercospora beticola infestis, Gouv. Kursk, Rossiæ. — Verisimiliter non diversa a Dipl. beticola Prill. et Delacr.

42. Diplodia Loranthi Bres. in Strasser, Verh. k. k. zool-bot. Ges. 6881 Wien LX (1910) p. 319. — Pycnidiis majusculis, simplicibus v. sæpius cæspitosis, obovatis, corticolis, ostiolis prominulis; sporu-

lis fuscis, subellipticis, 1-septatis, ad septum valde constrictis, 20-  $27 \times 9-12$ , pedicello hyalino,  $10 \times 3$  suffultis.

Hab. ad ramulos siecos Loranthi europæi, Sonntagberg Austriæ. — Teste Cl. Bresadola potius generi Botryodiplodiæ adscribenda videtur.

43. Diplodia Wurthii Koord., Botan. Untersuch. Java (1907) p. 153, f. 6882 4. — Pycnidiis sparsis v. gregariis, hinc inde confluentibus, subcutaneis, amphigenis, dein erumpentibus, subglobosis, circiter 150-250 μ. diam., atris, contextu plectenchymatico fuligineo; sporulis ovato-oblongis, oblongis v. ovatis, utrinque rotundatis, diu continuis, hyalino-farctis (macrophomoideis), tandem medio 1-septatis ad septum non constrictis, atro-fuligineis 22-30 × 12-18; sporophoris brevissimis, 4-10 μ. longis, paraphysibus subclavato-filiformibus, 50-60 μ. longis.

Hab. in foliis ramulisque Fici elasticæ quam valde lædit, Loano, Purworedjo etc. prov. Kedu Java, (Koorders).

44. Diplodia Ostryæ Syd., Ann. Mycol. (1910) p. 493, Myc. Germ. 6888 n. 922. — Pycnidiis gregariis, subcutaneo-erumpentibus, subglobosis, atris, c. 250-300 μ, diam.; sporulis oblongis, utrinque rotundatis, medio 1-septatis non v. vix constrictis, fusco-brunneis, 20-23 × 8-10; sporophoris brevibus, hyalinis.

Hab. in ramis Ostryæ virginicæ, Tamsel Germaniæ (P. Vogel).

45. Diplodia phœnicicola Speg., Myc. Argent. V, p. 370, in Anal. 6884 Mus. Nac. Buenos, Aires XX (1910). — Pycnidiis plus v. minus gregariis, lenticularibus, 150-180 μ. diam., primo epidermide tectis dein erumpentibus v. denudatis, atris, carbonaceis, glabris, minute ostiolato-papillatis; sporulis subellipsoideis, obtuse rotundatis, 20-23 × 11-13, rarissime inæquilateralibus, ad septum non constrictis, loculis æquilongis eguttulatis, subopace fuligineis.

Hab. ad petiolos dejectos putrescentes Phænicis canariensis in horto Santa Catalina, prope Buenos Aires Argentina Amer. austr.

46. Diplodia Stangeriæ H. Zimmermann in Verhandl. naturf. Ver. 6885 Brünn, XLVII (1908–1909) p. 40, t. I, f. 3 (Extr.) — Maculis maximis, pallescentibus, margine dilutis; pycnidiis, amphigenis, sparsis, 250-300 μ. diam., tectis dein erumpentibus, nigris; sporulis ovoideis, 26-30 × 14, initio hyalinis, granulosis, ovoideis v. ellipsoideis, uniseptatis, fuscis, granulosis, guttulis oleosis; sporophoris tenuibus, 10-30 × 1, hyalinis, continuis.

 $\it Hab.$  in folis vivis  $\it Stangerine paradoxee$  in tepidario culte, Eisgrub Austriæ.

47. Diplodia depazeoides Dur. et. Mont. - Syll. III, 372 - f. Arecæ 6886 Giuditta Mariani in Atti Soc. ital. Sc. Nat. L (1911) p. 168. - Sporulis 8,5-11 × 3-4.

Hab. in foliis Arecaæ sapidæ in horto botanico Coimbra, Lusitaniæ (A. Moller).

48. Diplodia cocoina Syd. Hedwigia, XLIX (1909) p. 82. — Pyc- 6887 nidiis gregariis, erumpentibus, minutis, lenticularibus, 150-175 μ. diam.; sporulis ovato-oblongis, utrinque rotundatis, primo hyalinis continuis, dein medio septatis et castaneo-brunneis, parum vel leniter constrictis, 11-18 × 7-9; sporophoris hyalinis, brevibus.

Hab. ad truncos Cocoës nuciferæ, Para, Brasilia (C. F. Baker).

49. **Diplodia Euterpes** Syd. Hedwigia XLIX (1909) p. 82. — Pyc- 6888 nidiis sparsis vel seriatim dispositis, erumpentibus, subglobosis, atris, subcarbonaceis, 150-200 μ. diam., poro pertusis; sporulis ellipsoideis, utrinque rotundatis, primo continuis hyalinis, dein medio 1-septatis brunneis, vix constrictis, 18-26 × 9-12; sporophoris brevibus, c. 10-15 μ. longis.

Hab. in vaginis emortuis Euterpes edulis, Para America austr. (C. F. BAKER).

50. Diplodia Henriquesiana Trav. et Spessa, Bol. Soc. Brot. XXV 6889 (1910) p. 181, t. III, f. 18. — Pycnidiis sparsis, erumpentibus, majusculis, atris, globosis, ½-½ mm. diam., subastomis, excipulo crasso irregulari præditis; sporulis late ellipsoideis, utrinque rotundatis, medio uniseptatis et ad septum non constrictis, loculis æqualibus, fulvo-fuligineis, 25-28 × 14-16.

Hab. in pseudobulbis adhuc vivis Cattley a labiata in horto botanico conimbricensi Lusitania (A Moller).

51. Diplodia Veratri Earle, Bull. of the New York Bot. Gard. 6890 (1904) p. 296. — Pycnidiis late sparsis, immersis, denique sæpe erumpentibus, nigris, subglobosis, non collabescentibus, 300-400 μ. diam., contextu crasso, opaco, cellulis 8-12 μ. cr. ostiolo minute papillato; sporulis subcylindraceis, demum fuscis, uniseptatis, non v. leniter constrictis, circ. 14 × 2; sporophoris non visis.

Hab. in caulibus emortuis Veratri, King's Cañon, prope Carson Nevada Amer. bor. (C. F. BAKER).

52. Diplodia macrospora (Poll.) G. Mariani — D. Rusci Sacc. et Th. 6891 var. macrospora Pollacci - Syll. XIV, 938-39 - var. caulicola, G.

Marjani in Atti Soc. Ital. Sc. Nat. L (1911) p. 168: sporulis 19- $22 \times 8 - 10$ 

Hab, in caulibus siccis Rusci Hypoglossi in horto bot. Coimbra Lusitaniæ (A Moller). — Teste cl. Mariani a typo D. Rusci ob sporulas multo majores certe distinguenda est species.

53. Diplodia ulcinjensis Bubák, Bull. Herb. Boiss., 2 ser. VI (1906) 6892 p. 482. — Pycnidiis sparsis, subcorticis sclerenchymate nidulantibus, globosis, collo crasso prominentibus, 200-220 p. latis, nigris, contextu nigro præditis; sporulis ex ellipsoideo ovoideis, 22-26 > 12-14, utrinque rotundatis, diu unilocularibus, demum trasverse uniseptatis, obscure castaneo-brunneis; sporophoris cylindraceis,  $10-22 \approx 2.5$ , rectis, hyalinis.

Hab. in ramis emortuis Asphodeli microcarpi, prope Ulcinj Montenegro.

54. Diplodia Pappiana Bacc., Funghi Eritr., Ann. Bot. v. IV (1906) 6893 p. 276. — Pycnidiis gregariis in maculis aridis et latis, sub epidermide demum lacerata nidulantibus, atris, 300-400 p. diam. globosis, ostiolo minime prominulo; sporulis ellipticis, castaneo-fuscis,  $6-8 \approx 3.5-4.5$ , ad septum non constrictis.

Hab. in foliis Sanseviera sp. in Montibus Arbarobu et Mohdet, Colonia Eritrea, 2200 m. alt. (PAPPI).

55. Diplodia fructus-Pandani P. Henn., Hedwigia XLVII (1908) p. 6894 264. — Pycnidiis gregariis cæspitosis, globulosis, atris; sporulis ellipsoideis v. ovoideis utrinque obtusis, medio 1-septatis, haud constrictis, atris 20-26 × 10-12; sporophoris hyalinis 6 × 3.

Hab in squamis fructus Pandani luzonensis, Luzon, Prov. Bataan, Lamao, Ins. Philippin (MERRILL).

56. Diplodia Simmonsii Rostr., Rep. second, Norweg. arctic Exped. 6895 Fram, (1906) p. 8. — Pycnidiis minutissimis, dense gregariis, globosis, atris, 0,1-0,2 mm. cr., foliicolis, innatis, contextu, parenchymatico, fusco; sporulis oblongis v. ellipsoideis, 1-septatis. fuligineis,  $12-19 \times 6-9$ .

Hab. in foliis Luzulæ arenatæ, E. Fram's Haven Norvegiæ.

57. Diplodia Oryzæ I Miyake, Pilze Reispfl. Japan in Journal Colleg. 6896 Agricult. Tokyo, II (1910) p. 258, t. XIV, f. 53-54. - Pycnidiis nigris, globosis, subepidermicis, ostiolo papilliformi apertis, 90 p. diam.; sporophoris parvis, 3-6 × 1, hyalinis; sporulis ellipsoideis. fusoideis v. cylindraceis, apice rotundatis, fuligineis, medio septatis ibique non v. parum constrictis,  $7.5-9 \approx 2.5-3$ .

Hab. in foliis glumisque Oryzæ sativæ, in Japonia.

58. Diplodia Agrostidis Saccardo, Not. Myc. VI, Ann. Myc. III (1905) 6897 p. 513. — Pycnidiis hinc inde dense gregariis, sub culmi vaginis præsertim nidulantibus dein expositis et globoso-conoideis, <sup>1</sup>/<sub>4</sub> mm. diam., nigris, glabris, ostiolo papillato; sporulis ellipsoideo-oblongis, 1-septatis, non constrictis, utrinque obtuse tenuatis, 22-25 × 6,5-7, diu hyalinis, dein fuligineis; sporophoris bacillaribus 25-30 × 2.

Hab. in culmis, præsertim ad nodos, Agrostidis albæ, Monello (Treviso) Ital. bor. — Affinis Diplodiæ Maydis.

59. Diplodia maculans Miyake et Hara in Bot. Mag. Tokyo (1910) 6898 p. (353) [japonice].

Hab. in Bambusæsp. in Japonia.

60. Diplodia? maydicola Speg., Myc. Argent. V p. 370 in Arales 6899 Mus. Nac. Buenos Aires XX (1910). — Pycnidiis prope nodos præcipue confertis, erumpenti-subsuperficialibus, sublenticularibus, 150-180 μ. diam., glabris, carbonaceis, minute ostiolato-papillatis, contextu opaco indistincto; sporulis subcylindraceis utrinque leniter attenuatis subacutiuscule rotundatis, 24-26 × 5-7, ad medium uniseptatis, non v. leniter coarctatulis, sæpe nonnihil inæquilateralibus, loculis æquilongis non v. minute biguttulatis, fusco-fumosis.

Hab. ad culmos dejectos putrescentesque Zeæ Maydis in arvis Villa Elisa, prope La Plata Argentinæ, Amer. austr. — Species sporularum fabrica a typo nonnihil desciscens.

61. Diplodia Zeæ (Schw.) Lév. Ann. Sc. Nat., Bot. (1848) p. 258. — 6900 Sphæriæ Zeæ Schw. Syn. Fung. Car. p. 207 (1822), ex Curr. Simpl. Sphær. n. 358. — Ita vocanda Diplodia Maydis (Berk.) Sacc. Syll. III p. 326 = Sphæria Maydis Berk. in Lond. Journ. Bot. (1847) p. 326. — Exempl. Sphæriæ Zeæ Berk. herb. (non Schw.) Diaporthes speciem sistunt; sed verisimiliter species commixtæ occurrunt. Cfr. Wilcox et Pool in XXII Ann. Rep. Nebraska Agric. Exp. St. (1909) t. I-X. — Huc quoque spectat Hendersonia Zeæ (Schw.) Hazsl. Math. Termész Közlem. X (1872) p. 48, tab. II, fig. 7.

DIDYMOSPORIELLA Trav. et Migliardi, Flora Micol. prov. Venezia,
p. 14 (1911) (Etym. a *Didymosporio* cuius est analogum genus).
— Pycnidia sub epidermide nidulatia, vix erumpentia, depressa,
astoma; excipulum membranaceum, multo tenuius in parte infe-

riore, ubi pycnidia subincompleta videntur. Sporulæ didymæ, fuscæ, ad septum constrictæ, apicibus plerumque angustatæ. Sporophora nulla distincta. — Generi *Didymosporio* inter Melanconiaceas affinis, sed excipulum etsi tenue adest; a *Diplodia* quoque statim dignoscitur fabrica pycnidii et sporulis subsessilibus.

1. Didymosporiella Æluropodis Trav. et Migliardi l. c. p. 14 tab. 6901 1, fig. 1. — Pycnidiis sparsis, epidermide initio tectis dein erumpentibus, lenticularibus, atris, subastomis, 180-220 × 80-100; excipulo tenui, in parte inferiore fere indistincto et dilute melleo, in parte superiore crassiusculo sed spurio, fuligineo-atro, astomo; sporulis ellipsoideis, utrinque distincte attenuatis, ad septum valde constrictis, fuligineis, 22-25 × 10-12, episporio levi vel interdum leviter verruculoso; sporophoris nullis distinctis.

Hab. ad basim culmorum putrescentium Æluropodis litoralis, prope Mestre ad litus venetæ Lacunæ, Ital. bor.

## MICRODIPLODIA Allesch. — Syll. XVIII p. 323.

Microdiplodia ascochytula (Sacc.) Allesch. Deut. Krypt. Fl. VII 6902
 p. 88, Potebnia in Ann. Myc. V (1907) p. 17, t. 3, f. 31. — Diplodia ascochytula Sacc. – Syll. III p. 345.

Hab. in ramis Lonicer a sp. quoque in Rossia.

2. Microdiplodia Thalictri Sacc., Ann. Mycol. VI (1908) p. 566. — 6908 Pycnidiis laxe gregariis, erumpentibus, globulosis, obtusis, nigris, 200 μ. diam.; sporulis tereti-oblongis, rectiusculis, utrinque rotundatis, 1-septatis, non constrictis, 4-guttatis, dilute olivaceis, 12-14 × 4, subsessilibus, nempe sporophoris vix 1 μ. alt. suffultis.

Hab. in caulibus emortuis Thalictri sp. in silvis Lyndon-ville N. Y. (FAIRMAN). — Socia adest Didymosphæria Thalictri (cfr.) quæ verisimiliter est st. ascophorus.

3. Microdiplodia Spirææ Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 358. 6904
— Pycnidiis epidermide tectis, sparsis, erumpentibus, sphæricis, apice ostiolo minuto papillatis, nigris; sporulis initio hyalinis et continuis, dein flavis, demum brunneis, medio 1-septatis, ad septa non v. leviter constrictis, 10-12 × 4-5.

Hab. in ramulis emortuis Spirææ crenatæ, Kecskemét Hungariæ.

4. Microdiplodia Alpataci Speg., Myc. Argent. V, p. 369, in An. Mus. 6905 Nac. Buenos Aires XX (1910). — Pycnidiis primo epidermide tectis eaque delapsa cortice infuscato minute squamuloso insidentibus, sparsis v. hinc inde laxe gregariis, subglobosis, 120-150 μ.

diam., glabris, subcarbonaceis, contextu atro indistincto; ostiolo impresso minuto perforatis; sporulis ellipsoideo-cylindraceis, utrinque rotundatis,  $8-12 \approx 3,5-5$ , ad septum non v. vix constrictis, levibus, fuligineis.

Hab. ad ramulos emortuos et aridos Prosopidis Alpataci in montanis Potrerillos prope Mendoza Argentina, Amer. austr.

5. Microdiplodia valvuli Fairm., Ann. Mycol. VIII (1910) p. 325. — 6906 Pycnidiis minutis, globosis v. sub-applanatis, erumpentibus, tandem superficialibus, sparsis, atris; sporulis piriformibus v. obovatis, plerumque ellipsoideis, utrinque rotundatis, primo continuis, tandem uniseptatis, ad sepimentum vix constrictis, brunneis, 6-9 × 4-6.

Hab. in leguminibus vetustis Robiniæ Pseudacaciæ, Lyndonville N. Y. Amer. bor.

6. Microdiplodia Larreæ Speg., Myc. Argent. V, p. 369, in An. Mus. 6907 Nac. Buenos Aires XX (1910). — Pycnidiis plus minusve dense gregariis, cortice epidermide vestitis, primo tectis dein nudis, eaque cinerescenteque insidentibus, lenticularibus, 130-150 μ. diam., glabris, subcarbonaceis, minutissime papillato-ostiolatis; sporulis ellipsoideis, utrinque subacutiuscule rotundatis, 10-12 × 5-6, crassiuscule tunicatis, ad medium uniseptatis, non v. vix constrictulis, loculis æqualibus eguttulatis fuligineis.

Hab. vulgata ad ramos Larreæ nitidæ in præruptis montanis Cacheuta prope Mendoza, Argentina Amer. austr.

7. Microdiplodia Xanthoceratis Hollós, Ann. Mus. Nat. Hung. IV 6908 (1906) p. 358. — Pycnidiis epidermide tectis, erumpentibus, depresso-globosis, nigris, poro pertusis, 300-400 μ. diam., contextu parenchymatico; sporulis ellipsoideis, initio continuis et hyalinis, dein medio 1-septatis, ad septa non v. leniter constrictis, dilute umbrinis, 10-14 × 4-6, massa sporularum nigra.

Hab. in ramulis emortuis Xanthoceratis sorbifolii culti, Kecskemét Hungariæ.

8. Microdiplodia Œnotheræ Hollós, Ann. Mus. Nat. Hung. IV (1906) 6909 p. 357, t. VIII, fig. 8. — Pycnidiis epidermide tectis, sparsis, depresso-globosis, fuscis, 400-500 μ. diam., contextu parenchymatico; sporulis initio hyalinis, dein flavidulis, medio 1-septatis, ad septa non v. vix constrictis, demum castaneo-umbrinis, 11-13 × 4,5-6.

Hab. in caulibus siccis Œnotheræ biennis prope Nagy-Körös Hungariæ.

9. Microdiplodia Elæagni Potebnia, Myc. Stud., in Ann. Myc. v. V 6910

(1907) p. 16, fig. 30 et Trav. Soc. Nat. Univ. Kharkow XXXXIII (1907). — Pycnidiis immersis, epidermide initio tectis deinde erumpentibus, 250-350 × 200, flavo-brunneis, nucleo nigro præditis; sporulis subcylindricis, utrinque rotundatis, non truncatis v. paulo biscotiformibus, flavo-brunneis, 9-10,5 × 4-5; sporophoris brevissimis.

Hab. in ramis Elæagni angustifolii, Kharkov Rossia.

10. Microdiplodia Piperorum Bubák, Bull. Herb. Boiss., 2 sér., VI 6911 (1906) p. 482. — Pycnidiis sparsis, fortiter depressis, rotundatis, 200-220  $\mu$ . latis, 150-160  $\mu$ . altis, crassiusculis, nigris, contextu nigro, in cortice nidulantibus, demum collo brevi erumpentibus; sporulis ex ovoideo elongatis,  $6.5-9 \approx 2.5-4$ , utrinque rotundatis v. raro basi angustatis, medio transverse uniseptatis, constrictis, obscure castaneo-brunneis.

Hab. in caulibus siccis Scrophulariæ heterophyllæ in Piperska Lukavica Montenegro.

- 11. Microdiplodia Visci (DC.) A. Pot. Ann. Mycol. VIII (1910) p. 63. 6912

   Ita vocanda *Diplodia Visci* (DC.) Fries Syll. X, p. 282. —
  Sporulæ 9-10 × 3,5-4. Nascitur quoque in Rossia.
- 12. Microdiplodia Alkannæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 6913 p. 356; tab. VIII, fig. 9. Pycnidiis epidermide tectis, sparsis, erumpentibus, globosis, nigris, apice ostiolo minuto papillato, 120-170 μ. diam., contextu parenchymatico; sporulis ellipsoideis, medio 1-septatis, ad septum non constrictis, rarius biguttulatis, flavidobrunneis, 8-11 × 3,5-4.

Hab. in caulibus siccis Alkannæ tinctoriæ prope Nagy-Körös et Izsók Hungariæ.

13. Microdiplodia Bryoniæ (H. Zimm.) Sacc. et Trott., Diplodia Bryo-6914 niæ H. Zimmerm. in Verhandl. naturf. Ver. Brünn, XLVII (1908-1909) p. 39, t. I, f. 10 (extr.). — Pycnidiis 50-150 μ. diam., lenticularibus, nigris, pertusis, in maculis pallidis caulicolis insidentibus; sporulis cylindraceo-fusoideis, brunneis, 11-13 × 4.

Hab. in caulibus vivis Bryoniæ dioicæ, Eisgrub Austriæ.
14. Microdiplodia Phillyreæ Bubák, Bull. Herb. Boiss., 2 sér., VI 6915 (1906) p. 481. — Pycnidiis amphigenis sparsis, globosis, 150-250 μ. latis, nigris, subepidermicis demum erumpentibus, contextu brunneo-nigro; sporulis elongato-ovoideis 6,5-9 × 4,5-5,5, utrinque rotundatis, medio transverse uniseptatis ibique non v. parum constrictis, obscure castaneo-brunneis.

Hab. ad gallas leneiculares foliorum Phillyreæ mediæ pr. Ulcinj Montenegro.

15. Microdiplodia mafilensis Speg., Fungi Chilenses (1910) p. 156, 6916 cum icon. — Pycnidiis plus minusve dense gregariis, superficialibus subglobosis, minutis, 90-120 μ. diam., atris, glabris, nitidulis, obsolete ostiolatis; sporulis ellipsoideis, medio 1-septatis, non v. leniter constrictulis, obscure fumosis, 8-12 × 4-6.

Hab. in ligno Nothofagi cujusdam, Mafil Chile Amer. austr.

16. Microdiplodia betulina P. Henn. Hedw. XLV (1905), p. 32. — 6917 Pycnidiis subcorticalibus, tectis, c. 1 mm. diam., atris, dein apice erumpentibus; sporophoris hyalinis, subulatis, 15-35 × 2,5-3; sporulis ellipsoideis, 2-guttulatis, medio crasse septatis, paullo constrictis, atris, 8-10 × 5-6.

Hab. in ramis siccis Betulæ albæ, Michailowskoe Rossiæ.

17. Microdiplodia Juglandis Diedicke, Ann. Mycol. IV (1906) p. 415. 6918 — Pycnidiis circa ramum annulatim dispositis et peridermium coniformiter elevantibus, demum longitudinaliter erumpentibus, lenticularibus, ostiolo conoideo præditis; sporophoris indistinctis, minutis; sporulis fere cylindraceis, apice rotundatis, bilocularibus, non constrictis, brunneis, 10-13 × 4.

Hab. in ramo Juglandis regiæ, Schwellenburg Thuringia.
18. Microdiplodia Ephedræ Hollós, Ann. Mus. Nat. Hung. IV (1906) 6919
p. 357. — Pycnidiis epidermide tectis, sparsis, depresso-globosis, nigris, apice perforatis, 90-140 μ. diam., contextu parenchymatico; sporulis ellipsoideis, medio 1-septatis, ad septa non v. vix constrictis, fuscis, 10-12 × 5-6.

Hab. in ramis emortuis Ephedræ distachyæ, prope Kecskemét Hungariæ.

19. Microdiplodia Anthurii Trinchieri, Rend. R. Ac. Sc. Fis. Matem. 6920 Napoli (1909) fasc. 3-4, marzo-aprile p. 91. — Pycnidiis amphigenis, dense gregariis, primum epidermide velatis, demum suberumpentibus, globulosis, pertusis, nigris, 110-147 μ. diam., 110-122 μ. altis; excipulo valido, parenchymatico, brunneo præditis; sporophoris nunquam visis; sporulis oblongis, utrinque obtusis v. rarius leniter acutis, quandoque curvulis deformatisve, 1-septatis, non vel vix constrictis, brunneis, 9-14,5 × 2-4,5.

Hab. in maculis magnis aridisque Phyllostictæ Cavaræ Trinch., ad folia viva Anthurii crassinervii, culti in calidario Horti regii botanici neapolitani, Ital. austr.

20. Microdiplodia Tofieldiæ Diedicke, Ann. Mycol. IV (1906) p. 415. 6921

— Pycnidis in maculis amphigenis pallescentibus insidentibus, epidermide inflata tectis dein erumpentibus, subglobosis, contextu parenchymatico, cellulis circa ostiolum obscurioribus; sporophoris inconspicuis; sporulis ex ellipsoideo ovoideis, flavo-brunneis, bilocularibus, medio non v. parum constrictis, 8-10 × 4-5.

Hab. in foliis emortuis Tofieldiæ calyculatæ, Delitzsch Thuringia.

21. Microdiplodia melaspora (Berk.) Griff. et Maubl., Bull. Soc. Myc. 6922 Fr. XXV (1909) pag. 55. — Ita vocanda est Darluca melaspora Berk. (Coniothyrium Sacc. Syll. III, p. 319). Ejus diagn. emendata hæc est: — Pycnidiis minutis, sparsis, nigris, immersis, depressis, 250-300 μ. diam., ostiolo minuto prominulo; sporulis ovoideis, obscure fuligineis, 1-septatis, haud constrictis, 6-10 ≈ 5-6.

Hab. in culmis Sacchari officinarum, Porto Rico.

22. Microdiplodia valdiviensis Speg., Fungi Chilenses (1910) p. 157. 6923 — Maculis infuscatis linearibus 0,5-1 mm. long., 250-500 μ. lat.; pycnidiis ligno immersis, subglobosis, 100-120 μ. diam., epidermide infuscata tectis, seriatim gregariis, atris, carbonaceis minute papillulato-ostiolatis; sporulis subcylindraceis, medio 1-septatis, non constrictis, parvis, olivaceis, 10-12 × 3; sporophoris hyalinis, conoideis, 5-6 × 2-5.

Hab. in caulibus siccis Chusque a valdiviensis prope Bahia de Corral, Chile Amer. austr.

- DIPLODIELLA Karst. Syll. III p. 375, XI p. 521, XIV p. 940, XVII p. 923, XVIII p. 328.
- Diplodiella Silenes Hollós, Ann. Mus. Nat. Hungar. VII (1909) 6924
   p. 55. Pycnidiis crustaceo-aggregatis, superficialibus, globoso-depressis, atris, glabris, nitidis, papillatis, 180-240 μ. diam., contextu celluloso; sporulis ellipsoideis, utrinque apice obtusis, medio 1-septatis, non v. vix contrictis, biguttulatis, brunneis, 10-12 × 3,5-4.

Hab. in caulibus siccis decorticatis Silenes Otitis prope Kecskemét Hungariæ.

2. Diplodiella Tamaricis Maubl. Bull. Soc. Mycol. de France XXII 6925 (1906) p. 66. — Pycnidiis gregariis, nigris, superficialibus, 200-250 μ. diam.; sporulis oblongis medio septatis, non v. vix constrictis, sæpe inæquilateralibus, utrinque obtusis, eguttulatis, fuligineis, 10-12 × 5; sporophoris rectis, brevibus.

Hab. in ramis decorticatis Tamaricis, Pornic Gallie.

3. Diplodiella Cocculi S. Da Camara, Bol. Soc. Broteriana, XXV (1910) 6926 Extr. p. 17. — Pycnidiis subglobosis, atris, sparsis, immersis, primo tectis demumque erumpentibus, papillatis, 150-200 μ. diam.; sporulis cylindraceis v. ovoideis, dilute melleis, uniseptatis, non v. vix constrictis, utrinque rotundatis, sæpe basi truncatis, biguttulatis, 7-10 × 3-4.

Hab. in ramulis Cocculi laurifolii in horto botanico Coimbra Lusitaniæ (A. Moller).

4. Diplodiella Actinonema (Schulz.) Sacc. et Trav. Syll. XIX p. 608 6927 (Diplodia), Sacidium Actinonema Schulz. v. Mügg. in Verh. zool.-bot. Ges. Wien (1871) p. 1252, t. 13, f. 33. — Pycnidiis hine inde dense gregariis hemisphærico-conoideis, superficialibus, 250-350 μ. diam., basi hyphulis brevibus brunneis cinctis, apice poro pertusis, nigris; sporulis irregularibus, ellipsoideis v. ellipsoideo-oblongis, rectis v. curvulis, 1-septatis, non constrictis, fuligineis, 15-26 × 7-11.

Hab. in ramis decorticatis Cydoniæ vulgaris in Hungaria.

5. Diplodiella Fruticosæ A. Zimmermann in Verhandl. naturf. Ver. 6928 Brünn, XLVII (1909) p. 41, t. I, f. 8 (extr.). — Pyenidiis 110-150 μ. diam., lenticularibus v. hemisphæricis, apice impresso pertusis, ostiolo 20 μ. lato, contextu parenchymatico, fusco-nigris; sporulis 10-14 × 4-5, cylindraceis v. piriformibus, subfuscis.

Hab. ad ramos inflorescentiæ, mortuos decorticatos, Amorphæ fruticosæ prope Eisgrub Austriæ.

6. Diplodiella Pseudo-sphæropsis R. Maire, Not. Myc., Ann. Myc. v. 6929 IV (1906) p. 330. — Pycnidiis nigris lignicolis, superficialibus, subglobosis, apice obsolete papillatis et pertusis, circ. 0,1-0,2 mm. diam.; sporulis oblongis vel oblongo-cylindraceis, 26-40 ≈ 12-18, episporio levi, brunneo, plasmate parietali granuloso, sero in medio septatis; sporophoris brevibus cylindraceis, tandem brunneis.

Hab. in ligno putrescente Pini silvestris, Prosnes, Marne Galliæ (E. Berland).

7. Diplodiella Ampelodesmi (R. Maire) Sacc. — Diplodia Ampelodesmi 6930 R. Maire, Bull. Soc. Mycol. Fr. t. XXI (1905) p. 214, f. 1. — Pycnidiis immersis, 100-300 μ. diam., ostiolo nigro, papilliformi exerto, plus minusve irregulari; sporulis flavo-brunneis, ovoideis v. fusoideis, ad septum haud constrictis, levibus, 8-13 × 3-6, sporophoris brevibus, simplicibus, hyalinis suffultis.

Hab. in calamis emortuis Ampelodesmi tenacis, Chateau de Bellvez in ins. Balearibus.

8. Diplodiella Oryzæ I. Miyake, Pilze Reispfl. Japan Journal College Agricult. Tokyo, II (1910) p. 259, t. XIV, f. 55-56. — Pycnidiis superficialibus, parietibus pseudoparenchymaticis tenuibus constitutis, globosis, v. ellipsoideis, 120-220 μ. diam., 120-180 μ. altis, obscure brunneis; sporophoris parvis; sporulis brunneis, fusoideis, uniseptatis, 9-13 × 2,5-3.

Hab. in foliis et glumis Oryzæ sativæ, Gotenba Nara Japoniæ.

CHÆTODIPLODIA Karst. — Syll. III p. 374, X p. 292, XI p. 521, XIV p. 940, XVIII p. 330.

1. Chætodiplodia grisea Petch, Ann. Roy. Bot. Gard. Peradeniya 6932 III Pt. I (1906) p. 6. — Pycnidiis minutis, nigris discretis, prominentibus, epidermide tectis, deinde erumpentibus, 250-400 μ. diam., in maculis brunneis insidentibus, pilis erectis, olivaceis, septatis, 70-180 μ. long. ornatis; ostiolis circ. 40 μ. diam.; sporulis primum continuis, hyalinis, cirro albido ejectis, deinde ellipsoideis, uniseptatis, 24-28 × 13-14, fusco-griseis, pariete circ. 8 μ. cr.; sporophoris circ. 10 μ. long.; paraphysibus internis 30-50 μ. long., linearibus.

Hab. in fructibus emortuis Theobromæ Cacao et in plantulis Heveæ brasiliensis, Ceylon.

2. Chætodiplodia velata Rota-Rossi, III Contr. Mic. Bergamo, Atti <sup>6938</sup> R. Ist. bot. Pavia ser. II. v. XIII p. 203 Extr. (1907). – Pycnidiis gregariis peridermio fisso erumpentibus, majusculis, 330-400 μ. diam., atris, globoso-conoideis sed aliquando plane truncatis, simplicibus v. spurie plurilocularibus, pilis primo prælongis numerosisque et quasi comam albidulam simulantibus, dein fuscidulis et tamquam setulis rigidulis præditis, contextu distincte parenchymatico; sporulis ellipsoideis, obtusis, fuligineis, medio 1-septatis, non v. parum constrictis, 18-24 × 7-9; sporophoris distinctis, bacillaribus 12-16 μ. long.

Hab. in ramulis corticatis emortuis Mori albæ prope Cisano Bergamo Ital. bor.

BOTRYODIPLODIA Sacc. — Syll. III p. 377, X p. 294, XI p. 522, XIV p. 941, XV p. 924, XVIII p. 331.

1. Botryodiplodia aromatica Speg., Fungi Chilenses (1910) p. 159. 6934

— Pycnidiis hinc inde parce gregariis (3-8), per corticem erumpentibus, subglobosis, 120-150  $\mu$ . diam., subcarbonaceis, minute obsoleteque ostiolatis; sporulis ellipsoideis v. obovatis, utrinque obtusis, 20-26  $\approx$  12-14, subopace fuligineis, 1-septatis, sepius constrictulis.

Hab. in ramis emortuis siccis arbusti cujusdam aromatici (? Laureliæ sp.) in silvaticis Cerro Caracol de Cencepcion Chile Amer austr

2. Botryodiplodia Lithrææ Speg., Fungi Chilenses (1910) p. 159. — 6935 Pyenidiis hinc inde pauci-cæspitosis (5-8), per corticem pustulatim erumpentibus, subglobosis, 150-180 μ. diam., atris, subcarbonaceis, minute papillato-ostiolatis; sporulis mediocribus opace fuligineis, 1-septatis, ellipsoideis v. obovatis, 28-32 × 13-15, non v. vix constrictulis.

Hab. in ramis emortuis siccis Lithrææ causticæ in silvaticis Cerro Caracol de Concepcion Chile Amer. austr.

3. Botryodiplodia lngæ Syd., Hedwigia XLIX (1909) p. 83. — Stro-6936 matibus valsiformibus peridermio pustulatim elevato tectis, plerumque confertis, forma magnitudineque variabilibus, rotundatis v. elongatis, minutis v. majoribus, 0,5-2 mm. longis; pyenidiis v. loculis numerosis (10-20) in quoque stromate, globosis v. subglobosis, 120-200 μ. diam., intus pallidis; sporulis ellipsoideis, utrinque rotundatis, primo continuis, hyalinis, dein medio 1-septatis brunneis, non v. vix constrictis, tandem emissis et matricem atroinquinantibus, 20-28 × 10-16; sporophoris fasciculatis, hyalinis, 15-30 × 1-2.

Hab. in leguminibus emortuis Ingæ cinnamomeæ, Para America austr. (C. F. BAKER).

4. Botryodiplodia insitiva Ranojevic, Ann. Mycol. VIII (1910) p. 6937 387. — Pycnidiis globosis, e stromate subcorticali orientibus, dein erumpentibus, supra liberis v. congestis, brunneo-nigris, contextu pseudoparenchymatico, flavo-brunneo, uni- v. plurilocularibus, usque ad 600 μ. lat.; sporulis elongatis, ellipsoideis, utrinque rotundatis, rectis, raro subincurvatis, bilocularibus, raro constrictulis, in quoque loculo uniguttulatis, flavo-brunneis, massam nigrescentem in pycnidio efficientibus, 8-15 × 4-6; sporophoris numerosis, sporulis brevioribus, apice attenuatis, hyalinis.

Hab. in ramis siccis Gleditschiæ Triacanthi prope Belgrad, Serbia. — A Botr. Gleditschiæ, sporis minoribus diverse coloratis, etc. distincta.

5. Botryodiplodia valdiviana Speg., Fungi Chilenses (1910) p. 160 6998 eum. icon. — Pycnidiis cæspitosis, pauci-gregariis, constipatis, substantia stromatica parca connexis, epidermide primo integra sublevata nigrificata tectis, dein erumpentibus, plus minusve exertis, atris, subcarbonaceis, subglobosis, 150-200 μ. diam., papillatoostiolatis; sporulis cylindraceis, ellipsoideis v. obvatis, utrinque rotundatis, 25-30 × 12-16, opace fuligineis, medio uniseptatis, plus minusve constrictulis.

Hab. in sarmentis emortuis Rubi sancti prope Ciudad de Valdivia, Chile Amer. austr.

6. Botryodiplodia Elasticæ Petch, Ann. Roy. Bot. Gard. Peradeniya 6989 III (1906) p. I, p. 7. — Per corticem in acervulos lineares v. rotundatos 1,5-2 mm. diam. erumpens; pycnidiis 0,25-0,4 mm. diam., polygoniis; sporulis 25-30 × 14-15, ovoideis, uniseptatis, violaceo-brunneis, pariete et septo crasso; paraphysibus numerosis, linearibus, 40-80 μ. long.

Hab. in radicibus plantularum Heveæ brasiliensis nec nou in cortice vulnerato Castilloæ elasticæ, Ceylon.

7. Botryodiplodia Batatæ P. Henn., Engl. Jahrb. XXXVIII (1905) <sup>6940</sup> p. 116. — Pycnidiis tubericolis, cæspitose erumpentibus confluentibusque, atro-carbonaceis; cæspitulis pulvinatis usque ad 5 mm. diam.; sporophoris hyalinis, filiformibus, 10-16 × 3; sporulis ellipsoideis, interdum ovoideis, primo hyalinis, continuis, intus granulatis, dein medio 1-septatis, vix constrictis, atris, 18-24 × 10-14.

Hab. in tuberibus Batatæ edulis, Usambara Africæ (Stuhlmann).

8. Botryodiplodia Marantæ Speg., Myc. Argent. V p. 371, in An. 6941 Mus. Nac. Buenos Aires XX (1910). — Pycnidiis hinc inde botryose aggregatis, cæspitulis 2-7 mm. diam., 1 mm. cr. stromate parco conjunctis, subglobosis, 120-150 μ. diam., carbonaceis, ?astomis; sphorophoris bacillaribus, 7-11 × 1.5-2, hyalinis, monosporis, constipatis, paraphysibus filiformibus, triplo-quadruplove longioribus commixtis; sporulis ellipsoideis v. obovatis, 18-22 × 10, primo continuis hyalinis dein 1-septatis non constrictis, loculis æquilongis, plus minusve intense fuligineis

Hab. ad rhizomata putrescentia Marantæ arundinaceæ cultæ, Santa Ana Misiones Argentina Amer.-austr.

 Botryodiplodia Ribis (Sacc.) Namysl. — Teste Namyslowski in 6942 Kosmos XXXIII (1908) p. 328, ita vocanda est Haplosporella Ribis Sacc. — Syll. III p. 324. LASIODIPLODIA Ell. et Ev. — Syll. XIV p. 939, XVI p. 924.

1. Lasiodiplodia Theobromæ (Pat.) Griff. et Maub., Bull. Soc. Myc. 6948 Fr. XXV (1909) p. 57, Botryodiplodia Theobr. Pat., Macrophoma vestita Prill. et Del., Diplodia cacaoicola Henn., Lasiodiplodia nigra Appel et Laub. Griffon et Maublanc (l. c.) hanc diagn. præbent. — Stromatibus nigris, contextu celluloso, primum immersis, erumpentibus, magnitudine variabilibus, intus loculis plus minusve numerosis (rarius loculo unico) globulosis v. piriformibus, poro pertusis, superficie pilis septatis 5 μ. er., rectis v. flexuosis vestita; sporulis ovoideis, primum hyalinis, granulosis, demum brunneis, 1-septatis, non constrictis, 20-30 × 11-15; sporophoris brevibus, rectis, crassis; paraphysibus numerosis, elongatis, hyalinis, apice paullulum incrassatis, usque ad 70 μ. long.

Hab. in fructibus ramis radicibusque Theobromæ Cacao, in radicibus Albizziæ Moluccanæ, in culmis Sacchari officinarum (Howard), in fructibus Mangiferæ indicæ (Charles), in ramis Caricæ (Appel et Laubert) etc. in regionibus tropicalibus

2. Lasiodiplodia nigra Appel et Laubert, Arb. K. Biol. Anst. f. Landw. 6944

Forstwirtschaft, V, Heft III (1905) p. 147 cum icon. — Mycecelio breviter articulato, brunneo; pycnidiis plerumque numerosis in parte exteriori stromatis verruciformi efformatis; sporulis 28-33 × 18-21; sporophoris simplicibus; paraphysibus numerosis immixtis 25 × 4-5.

Hab. in ramis languidis Theobromæ Cacao et Caricæ in ins. Samoa. — Test. Griffon et Maublanc species non differt. Lasiodipl. Theobromæ (Pat.) Griff. et Maubl.

3. Lasiodiplodia Fiorii Baccarini, N. Giorn. bot. it. (1910) p. 165. — 6945 Pseudostromate atro, crustaceo, subcutaneo-erumpente, late effuso, ramos ambiente, scabro; pycnidiis monostichis, pseudostromate insidentibus vel subimmersis, plerumque densissime stipatis, rugulosis subrotundis vel mutua pressione irregularibus, lanosis, dein calvis, 200-300 μ. latis, ostiolis breviter papillatis; sporulis initio unicellularibus atque hyalinis, dein atro-brunneis ac didymis, utrinque rotundatis, ad septum non constrictis, 24-26 × 12-15; paraphysibus filiformibus simplicibus longe superantibus.

Hab. in truncis Modeccæ abyssinicæ Hochst. in Erythræa.

4. Lasiodiplodia Thomasiana Sacc. in Ann. Mycol. VI (1908) p. 586 — 6946 Pycnidiis amphigenis subcutaneo-erumpentibus, prominulis, globo-

sis, obtuse papillatis, 300-400 µ. diam., modo solitariis, modo paucis coacervatis, fusco-nigricantibus, pilis longi mollibus, septatis, simplicibus v. parce ramosis, 150-200 × 4-5, dilute fuligineis; contextu denso atro-fuligineo; sporulis elliptico-oblongis v. leviter clavulatis, initio continuis, hyalinis et valde refringentibus dein 1-septatis, non v. vix constrictis, 28-30 × 11-12; sporophoris bacillaribus, hyalinis, 15-20 × 2; paraphysibus intermixtis prælongis, 80-90 × 1,5 apice paullo crassioribus.

Hab. in foliis Heptapleuri Barteri (Aral.). Roca Sandade, S. Thomé, altit. 700 m., Africa (Ad. Moller). - A L. tubericola præter habitationem, diagnoscitur paraphysibus duplo longioribus, sporulis longioribus et pseudostromate minus manifesto.

5. Lasiodiplodia abnormis Trav. et Spessa in litteris. — Pycnidiis 6947 aterrimis hinc inde gregariis, primum, ut videtur, epidermide tectis, sed mox nudatis superficialibusque, globosis, atris, minutis, 160-200 µ. diam. subiculo crustoso ex hyphis ramosis, intricatis, parce septatis, umbrino-isabellinis, 4-5 µ. diam. constituto insidentibus, contextu atro-fuligineo, subcarbonaceo; sporulis ellipsoideoovoideis, initio et diu hyalinis, continuis, granuloso-farctis, dein septatis, ad septum non vel leniter constrictis, fulvo-fuligineis. 25-28 = 13-15; sporophoris brevibus cylindraceis.

Hab. in fructibus dejectis et marcescentibus Pandani thomensis, Rodia in insul. S. Thomé, alt. 550 m. — A L. tubericola plurimis notis valde differt et præcipue ob pycnidia stromate nullo inclusa et ob defectum paraphysium distinctarum. Ad hoc genus tamen pertinere videtur. Certe a Diplodia Pandani valde diversa, nec cum ea comparanda.

## Sect. 4. Hyalodidymæ.

**ASCOCHYTA** Lib. — Syll. III p. 384, X p. 295, XI p. 522, XIV p. 942, XVI p. 925, XVIII p. 335.

## I. Eu-Ascochyta. Sporulæ hyalinæ.

1. Ascochyta carinthiaca Jaap, Ann. Mycol. VI (1908) p. 219. — Ma- 6948 culis magnis, paucis, amphigenis, rotundatis v. subellipticis, 0,5-1,5 cm. latis, brunneis deinde medio cinerescentibus, aureola brunnea

circumdatis, zonatis; pycnidiis epiphyllis, indistinctis, paullo prominentibus, globosis, brunneis; sporulis cylindraceis, rotundatis, 2-cellularibus, non v. modice constrictis, guttulis numerosis, plerumque 2-6 præditis, hyalinis  $14-20 \approx 3,5-5$ .

Hab. in foliis Ranunculi Thorse Jovansteig prope Eisen-

kappel in Karawanken, Carinthia.

2. Ascochyta Vodákii Bubák, Beitr. Pilzfl. Ung., in Növénytani Közlemények (1907) Heft 4, Extr. p. 32. — Maculis epiphyllis utrinque visibilibus, sparsis, sæpe confluentibus, rotundatis v. rotundatosinuatis, brunneis, dein brunneo-nigris, concentrice zonatis, anguste pallideque marginatis, areola flavo-viridi v. macula irregulari brunnea sæpe magna circumdatis; pycnidiis epiphyllis subepidermicis, globosis v. depressis, pallide brunneis, subpellucidis, 120–180 μ. diam., contextu flavido indistincte parenchymatico, ostiolo brevi distincto erumpenti; sporulis cylindraceis 14-22 × 4-4,5, rectis, utrinque rotundatis, medio transverse uniseptatis, non constrictis, minute et grosse guttulatis, hyalinis; sporophoris brunneolis, conoideo-papilliformibus.

Hab. in foliis vivis Hepaticæ trilobæ in M. Domugled prope Herculesfürdö Hungariæ et prope Stadt Opocno Bohemia.

3. Ascochyta Aquilegiæ (Roum. et Pat.) Sacc. — Syll. III, p. 306 — 6950
Quoad ejus synonymiam cfr. v. Höhn. Ann. Mycol. 1905 p. 406.
— Sporulæ 8-17 > 3-5, oblongæ, singulatim visæ hyalinæ, interdum continuæ, typice 1-septatæ, rarius 2-septatæ.

Hab. in foliis Aquilegiæ vulgaris, in Germania et Gallia.

4. Ascochyta Lepidii Hollós, Ann Mus. Nat. Hung. VI (1908) p. 531. 6951 Pycnidiis amphigenis, gregariis, epidermide velatis, lenticularibus, brunneis, poro pertusis, 70-100  $\mu$ . diam., contextu celluloso; sporulis oblongo-ellipsoideis, medio 1-septatis, non constrictis, biguttulatis, hyalinis,  $12-14 \approx 3,5-4$ .

Hab. in foliis languidis Lepidii ruderalis prope Kecskemét Hungariæ.

5. Ascochyta rusticana Kab. et Bub. in Hedw. L (1909) p. 41. — Maculis amphigenis, variæ magnitudinis, rotundo-ellipticis, raro oblongis, 0,5-2 cm. lat., ochraceis v. brunneis, centro expallentibus et rimosis, sæpe obscurius limbatis, sæpe confluentibus et magnam folii partem v. totum folium occupantibus; pycnidiis copiosis, sparsis, rarius gregariis v. confertis, lenticularibus, 150-270 μ. d., brunneis, contextu tenui laxe celluloso, brunneo; sporulis copiosis, cylindricis, 16-18 × 3,5-4,5, rectis curvulisve, utrinque rotun-

datis, initio continuis, granulosis, mox 1-septatis, non constrictis, hyalinis, pluriguttulatis; sporophoris papilliformibus.

Hab. in foliis Armoraciæ rusticanæ, Turnau Bohemiæ.
Ab A. Armoraciæ Fuck. certe diversa.

6. Ascochyta Chelidonii Kab. et Bub., Myc. Beitr., Hedwigia Bd. 6953 XLVI (1907) p. 290. — Maculis epiphyllis, majusculis, irregularibus, arescendo brunneis v. nigricantibus; pycnidiis epiphyllis, sparsis, immersis, epidermide tectis, e succineo brunneis, apice poro minuto apertis, contextu tenui parenchymatico; sporulis cylindraceis 10-22 × 4-6, rectis v. curvis, apice rotundatis, medio uniseptatis, ibique non v. modice constrictis, loculis quandoque inequalibus, biguttulatis, hyalinis; sporophoris hyalinis v. flavidis, papilliformibus.

Hab. in foliis vivis Chelidonii majoris, Bohemia (KABAT).
Socia sæpe adest Septoria Chelidonii.

7. Ascochyta Fumariæ Hollós, Ann. Mus. Nat. Hung. VI (1908) 6954 p. 530. — Maculis indeterminatis; pycnidiis epiphyllis, sparsis, epidermide velatis, lenticularibus, brunneis, poro pertusis, 140-180 μ. diam., contextu celluloso; sporulis elliptico-fusoideis, subcylindraceis, utrinque rotundatis, rectis v. curvulis, 1-septatis, non constrictis, pluriguttulatis, hyalinis, 14-18 × 4-5,5, cellulis inæqualibus.

Hab. in foliis languidis Fumariæ Schleicheri prope Nagy-Körös Hungariæ.

8. Ascochyta Cookei Messee, Kew Bull. (1907) p. 241, fig. 5-6. — 6955 Pycnidiis dense gregariis, inordinatis, in maculis elongatis lutescentibus nidulantibus, subepidermicis, globosis, ostiolo erumpentibus, 70-80 μ. diam., basi hyphis mycelialibus septatis, fuligineis præditis; sporulis hyalinis, medio septatis, non constrictis, cylindraceo-clavatis, 40 × 4-5, utrinque obtusis.

Hab. in foliis vivis Dianthi barbati culti in hortis Kew Angliæ (Cooke). — Ad gen. Septoriam vergit.

9. Ascochyta pallida Kab. et Bub., Hedwigia, XLVII (1908) pag. 6956 357; Fungi imp. exs. fasc. XI (1909) n. 572. — Maculis amphigenis, rotundatis v. irregularibus, pallide ochraceis v. pallide brunneis, non limitatis, magnitudine variabilibus, sæpe late confluentibus; pycnidiis epiphyllis plerumque sparsis, quandoque gregariis v confertis, epidermide tectis, ostioto minuto papilliformi erumpentibus, globoso-applanatis, pallide brunneolis, 100-190 μ. diam., contextu tenui parenchymatico, pallide brunneos; sporulis ex elongato cylindraceis, 6-9 ≈ 3-4, utrinque rotundatis, rectis,

raro curvulis, medio transverse uniseptatis, ibique non v. leniter constrictis, hyalinis; sporophoris hyalinis, conoideo-papilliformibus.

Hab. in foliis vivis Aceris platanoidis fm. bicoloris prope Turnau Bohemia (KABAT).

10. Ascochyta velata Kab. et Bub., Myc. Beitr. Hedw. Bd. XLVI 6957 (1907) p. 293. — Pycnidiis epiphyllis in maculis sparsis v. gregariis confluentibusque immersis, epidermide pustuliformi tectis, demum poro papilliformi erumpentibus, lenticularibus, 120-220 p. diam., e brunneo obscure brunneis, contextu parenchymatico, infra pallide brunneo supra brunneo; sporulis ellipsoideis v. elongatis, utrinque rotundatis, rectis v. curvulis, medio uniseptatis, non v. parum constrictis, 12·16 × 5·6.5, loculis quandoque inequalibus, hyalinis, pluriguttulatis; sporophoris crassis, papilliformibus, supra late subhemisphæricis.

Hab. in foliis Aceris platanoidis et varietatum ejusdem prope Turnau Bohemia (KABAT).

11. Ascochyta Tragiæ Speg., Myc. Argent. V, p. 365, in An. Mus. 6958 Nac. Buenos Aires XX (1910). — Maculis amphigenis suborbicularibus, 3-5 mm. diam., subindeterminatis, sordide fuscescentibus, centro per ætatem sæpius arescenti-cinereis; pycnidiis centralibus paucis parenchymate innatis, epidermide velatis, lenticularibus, 75-80 µ. diam., tenuissime membranaceis, contextu indistincto olivaceo; sporulis ellipsoideo-subevlindraceis, utrique rotundatis, 8-12 × 3-4, didymis, loculis sæpius æquilongis, hyalinis.

Hab. ad folia viva Tragiæ geranifoliæ in pratis circa La Plata Argentina, Amer. austr.

12. Ascochyta Mercurialis Bres. - Syll. XVI p. 933 - var autum- 6959 nalis Bub. et Kab. Hedw. L (1909) p. 40. - A typo differt tantum maculis diversis, nempe non eumorphis sed folia ab apice ad margines decolorantur et ex alutaceo lete brunnea fiunt et mox tota folia arescunt et cinerescunt, cetera eadem.

Hab. in foliis Mercurialis perennis pr. Turnau Bohemia. 13. Ascochyta Evonymi Kab. et Bub., Myc. Beitr. Hedwigia Bd. 6960 XLVI (1907) p. 290. — Maculis epiphyllis, usque ad 5 mm. latis, siccis, sordide albis, rotundatis, sæpe tenuiter brunneo-marginatis; pycnidiis epiphyllis, sparsis v. gregariis, innatis, epidermide prominente tectis, demum poro papilliformi erumpentibus, lenticularibus, 80-100 µ. lat., pallide brunneis, contextu minute parenchymatico pallide flavo-brunneo; sporulis ellipsoideis v. breviter cylindraceis,

6-8 = 3-4, utrinque rotundatis, primum unilocularibus dein medio uniseptatis, non constrictis, hyalinis; sporophoris papilliformibus. Hab. in foliis vivis Evonymi vulgaris prope Turnau Bohemia (KABAT). - Forsam huc ducenda est Phyllosticta destructiva Desm.

14. Ascochyta Æsculi Kab. et Bub. Hedwigia XLVII (1908) pag. 6961 356; Fungi imp. exsicc. fasc. XI (1909) n. 509. — Maculis epiphyllis, irregularibus, magnis, late confluentibus, flavidis dein brunneis, sæpe flavo-marginatis; pycnidiis epiphyllis, solitariis v. gregariis, quandoque circinantibus, subglobosis, e brunneo obscure brunneis, 80-120 µ. diam., immersis, epidermide tectis, ostiolo cylindraceo brevi erumpentibus, contextu parenchymatico pallide brunneo; sporulis numerosis, ellipsoideis v. cylindraceis, 12-22 × 6-8,5, utrinque rotundatis, rectis v. raro curvulis, transverse uniseptatis, ibique non v. parum constrictis, loculis sæpe inæqualibus; sporophoris conoideo-papilliformibus, latis, sporulas subæquantibus, brunneis.

Hab. in foliis vivis Æsculi Hippocastani fm. bicoloris prope Turnau Bohemia (KABAT).

15. Ascochyta grandimaculans Kab. et Bub., Myc. Beitr., Hedwigia 6962 Bd. XLVI (1907) p. 291. — Maculis epiphyllis, atro-flavidis v. alutaceis, infra pallide brunneis, magnis, irregularibus, rubro-purpureo marginatis; pycnidiis epiphyllis, sparsis, immersis, globosis, parum depressis, 70-120 μ. diam., brunneis v. nigro brunneis, apice poro rotundo apertis, contextu parenchymatico, tenui, infra flavo-brunneo, supra obscure brunneo; sporulis ovoideis, ellipsoideis, plerumque vero cylindraceis, 4-7 × 2,5-3, hyalinis, utrinque rotundatis, primum unilocularibus, demum transverse uniseptatis; sporophoris brevibus hyalinis.

Hab. in foliis Æsculi Hippocastani, prope Turnau Bohemia (KABAT).

16. Ascochyta Phellodendri Kab. et Bub., Myc. Beitr., Hedwigia Bd. 6963 XLVI (1907) p. 292. — Maculis epiphyllis, magnitudine variabilibus, rotundatis v. plus minus irregularibus, brunneis, sæpe indistincte zonatis, centro arescentibus, frequenter anguste brunneo-marginatis, sæpe late confluentibus et totum folium occupantibus; pycnidiis epiphyllis, sparsis, raro gregariis, immersis, epidermide tectis, poro minuto rotundato papilliformi erumpentibus. brunneis, globosis, 70-120 μ. diam., contextu tenui pseudoparenchymatico, pallide brunneolo; sporulis breviter cylindraceis, 6-

 $10 \times 3.5$ , rectis v. curvulis, diu unilocularibus dein transverse uniseptatis, ibique non v. leniter constrictis, utrinque rotundatis, in quoque loculo 1-v. biguttulatis, hyalinis; sporophoris papilliformibus hyalinis.

Hab. in foliis vivis Phellodendri amurensis prope Turnau Bohemia (Kabat).

17. Ascochyta Orobi Sacc. – Syll. III p. 398 – var. Onobrychidis 6964 Prill. et Delacr. in Bull. Soc. Mycol. Fr. IX (1893) p. 272, t. 13, f. 5 5a. — Pyenidiis lenticularibus, brunneo-fulvis, 120-150 μ. diam., poro 40-45 μ. lato; sporulis hyalinis, 1-septatis, tenuiter guttulatis, 16 × 5-6, leviter constrictis, utrinque rotundatis, subinde curvulis.

Hab. in foliis Onobrychidis sativæ, socia Ramularia Onobrychidis in Gallia.

18. Ascochyta Galegæ Hollós, Ann. Mus. Nat. Hung. V (1907) p. 6965 459. — Maculis irregularibus, fuscis; pycnidiis sparsis, epidermide velatis, brunneis, ellipsoideis, 200-250 × 120-180, poro pertusis, contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, medio 1-septatis, leviter constrictis, hyalinis, 14-16 × 4.

Hab. in foliis vivis Galegæ officinalis prope Kecskemét Hungariæ.

19. Ascochyta Trigonellæ Trav. et Spessa, Bol. Soc. Brot. XXV 6966 (1909) p. 180, t. III f. 21. — Pycnidiis in areolis subdecoloratis gregariis, punctiformibus, vix prominulis, globoso-depressis, ½-1/5 mm. diam., poro distincto circulari pertusis, contextu tenui melleo; sporulis cylindraceo-bacillaribus, medio septatis et non constrictis, rectis vel subcurvulis, hyalinis, sæpe varie guttulatis, 12-15 × 2½-3.

Hab. in caulibus exsiccatis Trigonellæ (Meliloti) cæruleæ in horto botanico conimbricensi Lusitaniæ (A. Moller).

20. Ascochyta Rubi Sacc. Ann. Mycol. VII (1909) p. 434. — Ma- 6967 culis suborbicularibus, minutis, 1-2 mm. diam., fusco-sanguineis, epiphyllis, non marginatis; pycnidiis paucis lenticularibus, poro pertusis, 70-80 μ. diam.; sporulis breve fusoideis, utrinque obtusulis, 10-11 × 2,5 3, medio septatis, non constrictis, hyalinis v. subhyalinis.

Hab in foliis languidis Rubi fruticosi var. discoloris in Horto botanico Neapolitano, Ital. austr. (L. Cufino).

21. Ascochyta Pruni Kabát et Bubák, Hedwigia XLVII (1908) p. 6968 358. — Maculis epiphyllis, rotundatis, rotundato-subpolygoniis v. indeterminatis, sæpe indistinctis, brunneis dein griseo-cinereis, siccis, sæpe latis, plerumque indistincte purpureo-brunneo marginatis; pycnidiis epiphyllis sparsis, confertis, v. etiam confluentibus, immersis, epidermide tectis, globoso-applanatis, 120-180  $\mu$ . diam., pallide brunneis, poro minuto papilliformi erumpentibus, contextu parenchymatico firmo, pallide brunneo v. flavido; sporulis cylindraceis, 7-11  $\approx$  3,5-4, utrinque rotundatis, raro curvulis, transverse uniseptatis, non v. leniter constrictis, hyalinis, biguttulatis; sporophoris latis, conoideo papilliformibus, flavidis.

Hab. in foliis Pruni Padi, Turnau et prope Pelesan Bohemia (KABAT).

22. Ascochyta Spirææ Kab. et Bub. Hedwigia XLII (1908) p. 359; 6969

Fungi imp. exs. fasc. XI (1909) n. 515. — Maculis amphigenis rotundatis v. irregularibus, magnitudine variabilibus, singulis v. gregariis confluentibusque, obscure brunneis, sæpe plus v. minus distincte zonatis, plerumque immarginatis, raro purpureo-brunneo circumdatis; pycnidiis plerumque hypophyllis, raro epiphyllis, sparsis v. gregariis, quandoque subcircinantibus, immersis, epidermide diu tectis, erumpentibus, poro irregulari apertis, globosolenticularibus, 100-120 μ. diam., brunneis, contextu tenui parenchymatico; sporulis breviter cylindraceis, sæpe constricto-didymis 5-11 × 3-4,5, rectis raro curvulis, transverse uniseptatis ibique non constrictis, utrinque rotundatis, hyalinis.

Hab. in foliis emortuis dejectis Spirææ chamædryfoliæ prope Turnau Bohemia (KABAT).

23. Ascochyta Malvæ H. Zimmermann, in Verhandl. naturf. Ver. 6970 Brünn, XLVII (1908-1909) p. 37, t. I, f. 7 (extr.). — Maculis subrotundis, dilute ochraceis, postremo albidis, anguste saturatius marginatis; pycnidiis epiphyllis, sparsis, subvelatis, 150-200 μ. d., contextu brunneo, ostiolo 30 μ. lato, nigro-marginato; sporulis initio cylindraceis v. ovoideis, 6-9 × 3-4, postea cylindraceis v. in medio coarctatis, 8-9 × 3,5, uniseptatis.

Hab. in foliis vivis Malvæ neglectæ, Eisgrub Austriæ.

24. Ascochyta Abutilonis Hollós, Ann. Mus. Nat. Hungar. VII (1909) 6971 p. 53. — Maculis utrinque conspicuis, subrotundis v. irregularibus, alutaceis, rubescenti-marginatis, 5-10 mm. diam.; pycnidiis epiphyllis, globoso-depressis, ochraceis, poro pertusis, 140-190 μ. d., contextu celluloso; sporulis elliptico-fusoideis, subinde curvulis, diu continuis, demum medio 1-septatis, non constrictis, hyalinis, 8-9 × 3-4.

Hab. in foliis vivis Abutilonis Avicennæ prope Kecskemét Hungariæ.

25. Ascochyta grandispora Kab. et Bub., Hedwigia XLVII (1908) 6972 pag. 356; Fungi imperf. exs. fasc. XI (1909) n. 510. — Maculis epiphyllis, rotundatis v. subrotundato-incurvatis, 2-5 mm. diam., singulis v. paucis, sparsis, raro confluentibus, rubro-brunneis, ochraceis v. brunneis, parum distincte limitatis, anguste flavido-marginatis; pycnidiis epiphyllis, sparsis, punctiformibus, immersis, poro minuto rotundato erumpentibus, globosis, 80-150 μ. diam, brunneis, contextu tenui parenchymatico, pallide brunneo; sporulis elongatis v. cylindraceis, 18-28 × 6-10, rectis, utrinque rotundatis, transverse uniseptatis, ibique non v. leniter constrictis.

Hab. in foliis vivis Symphoricarpi orbiculati prope Turnau, Bohemia (Кават).

26. Ascochyta Symphoriæ Kabát et Bubák, Hedwigia XLII (1908) 6973 p. 359; Fungi imp. exs. fasc. XI (1909) n. 516. — Maculis epiphyllis, rotundatis v. irregularibus, magnitudine variabilibus, quandoque late confluentibus, e nigro-brunneis nigro-griseis, arescentibus, plerumque immarginatis; pycnidiis sparsis, immersis, epidermide tectis, poro minuto rotundato v. irregulariter erumpentibus, brunneis, globosis 65 μ. diam. v. lenticularibus 120-165 μ. latis, contextu parenchymatico pallide ochraceo; sporulis numerosis, cylindraceis, 8-13 × 3-4, utrinque rotundatis, rectis v. raro curvulis, diu unilocularibus, demum transverse uniseptatis, non constrictis v. constricto-didymis, hyalinis, contextu granuloso.

Hab. in foliis vivis languentibus Symphoricarpi racemosæ Turnau, Bohemia (KABAT).

27. Ascochyta symphoricarpophila Fairm. Ann. Mycol. (1910) p. 323. 6974
 — Maculis brunneis, irregularibus plerumque marginalibus; pycnidiis minutis, epiphyllis, atris; sporulis ellipsoideis, utrinque rotundatis, uniseptatis, hyalinis, 6-9 ≈ 3-4.

Hab. in foliis vivis Symphoricarpi racemosæ, Lyndonville N. Y. Amer. bor. — An eadem ac A. Symphoriæ K. et B.?
28. Ascochyta Diervillæ Kab. et Bub., Myc. Beitr., Hedwigia Bd. 6975 XLVI (1907) p. 290. — Maculis epiphyllis, solitariis v. sparsis, rotundatis, ellipsoideis v. irregulariter incurvatis, plerumque minutis confluentibus, varie rugulosis v. variolosis, brunneis, purpureo-brunneo cinctis; pycnidiis epiphyllis, punctiformibus, solitariis v. parce gregariis, globosis v. subdepressis, 80-150 μ. diam., brunneis, apice poro apertis, contextu firmo parenchymatico brunneo;

sporulis ellipsoideis v. breviter cylindraceis, 9-15  $\times$  4-5,5, rectis v. raro curvulis, primum unilocularibus (6-8  $\mu$ . long.) raro transverse uniseptatis ibique non vel parum constrictis, utrinque rotundatis, hyalinis; sporophoris papilliformibus, flavidis.

Hab in foliis vivis Diervillæ canadensis prope Turnau Bohemia (Kabat). — Ab Asc. Weigeliæ Sacc. et Sp. forma macularum et sporularum distincta.

29. Ascochyta Ferdinandi Bubák et Malkoff, Ann. Myc. VI (1908) 6976 p. 24. — Maculis rotundatis v. sinuosis, amphigenis, infra brunneis, supra griseis, brunneo-marginatis, obsolete zonatis, usque ad 1 cm lat.; pycnidiis epiphyllis, sparsis, ochraceis, epidermide velatis, prominulis, e globoso depressis, poro vix papillato erumpentibus, 80–120 μ. diam.; contextu flavo-brunneo v. subhyalino, tenuiter parenchymatico; sporulis cylindraceis, 15-22 × 4,5-5, rectis, 1-septatis, rarissime constrictis, biguttulatis, hyalinis.

Hab. in foliis adhuc vivis Sambuci Ebuli pr. Ferdinand Bulgariæ (Мацкоff). — Ab A. Sambuci rite distincta.

30. Ascochyta Rubiæ Bubák, Bull. Herb. Boiss. 2 sér., VI (1906) 6977 p. 476. — Maculis foliicolis utrinque visibilibus, griseis, arescentibus, rotundatis, 2-4 mm. latis, tenuiter limitatis, areola purpureo-brunnea limitatis; pycnidiis epiphyllis sparsis, epidermide tectis, globosis. parum depressis, 70-120 μ. latis, nigris, contextu castaneo-brunneo, medio poro rotundato præditis; sporulis ovoideis vel elongatis, 6,5-9 × 2,5-3,5 medio transverse uniseptatis, non constrictis, apice rotundatis, guttulatis.

Hab. in foliis vivis senioribus Rubiæ peregrinæ prope Ulcinj Montenegro.

31. Ascochyta orientalis Bondarzew, Acta Horti Petropol. XXVI 6978 (1906) p. 43 (extr.). — Maculis griseis atro-brunneo-marginatis, confluentibus; pycnidiis epiphyllis, brunneis, poro rotundo pertusis, 100-200 μ. diam.; sporulis 1-septatis, medio paullum constrictis, 2-4-guttulatis, 16-20 × 6, hyalinis.

Hab. in foliis vivis Syringæ vulgaris in ditione Kursk Rossiæ.

32. Ascochyta Phlogis Voglino, Ann. R. Acc. Agric. Torino v. LI 6979 (1908) Extract. p. 20, Nota 1. — Maculis griseis, dealbatis, oblongis, seu irregulariter effusis; pycnidiis plerumque gregariis, prominulis, conicis, nigris; sporulis hyalinis, ellipsoideis, diu continuis, inde uniseptatis, ad septum leniter constrictis, 10 × 3; sporophoris brevissimis, incrassatis.

Hab. in foliis languidis caulibusque siccis Phlogis Drummondi, Lucento et Torino Italia bor. — \* A. phlogina Fairm. Ann. Mycol. (1910) p. 323. — Maculis albidis, rotundatis v. indeterminatis, brunneo-cinctis; pycnidiis minutis, atris; sporulis uniseptatis, hyalinis, 10-14 × 3. — In foliis vivis Phlogis Drummondi cultæ, Lyndonville N. Y. Amer. bor.

33. Ascochyta Scrophulariæ Kab. et Bub., Hedwigia XLII (1908) 6980 p. 359. — Maculis epiphyllis, rotundatis v. irregularibus, sæpe concentrice zonatis, alutaceis v. brunneolis, e medio arescentibus, immarginatis, quandoque confluentibus; pycnidiis epiphyllis, sparsis, punctiformibus, nigris, primum epidermide tectis, demum eam dilacerantibus et tunc superficialibus, globosis v. parum applanatis, 120-180 µ. diam., poro minuto rotundato apertis, contextu parenchymatico, obscure brunneo; sporulis cylindraceis, utrinque rotundatis, rectis 8-12 > 3,5-4, medio transverse uniseptatis, ibique non constrictis, hyalinis, in quoque loculo biguttulatis; sporophoris latis, conoideo-papilliformibus.

Hab. in foliis vivis Scrophulariæ nodosæ, prope Turnau Bohemia (Kabat).

34. Ascochyta Dulcamaræ Bubák, Beitr. Pilzfl. Ung., in Növénitani 6981 Közlemények, Heft 4 (1907) Extr. p. 31. — Maculis epiphyllis rotundatis, primum sordide viridibus, dein fere nigris, leniter concentrice sulcatis, 2-5 mm. latis, 1-3 in quoque folio; pycnidiis in mesophyllo immersis, globosis v. depressis, 100-150 u. latis, trans lucem flavo-ochraceis, contextu minute parenchymatico pallide flavo; sporulis cylindraceis 7-9 × 2-4, rectis v. raro curvulis, apice rotundatis v. subtruncatis, diu unilocularibus dein plerumque medio transverse uniseptatis, hyalinis.

Hab. in foliis emortuis Solani Dulcamaræ, Csernatal prope Herkulesfürdö. — Ab Asc. Lycopersici Br. pycnidiis flavoochraceis, sporulis medio non constrictis, ab A. socia Pass. maculis foliicolis distinctis, pycnidiis pallidioribus, sporulis, cylindraceis diversa. Etiam ab Asc. solanicola Oud. et ab Asc. Solani-nigri Died. compluribus notis distincta.

35. Ascochyta Kleinii Bubák, Beitr. Pilz. Ung., in Növénytani Köz- 6982 lemények (1907) Heft 4 Extr. p. 31. — Maculis epiphyllis sparsis, e rotundato elongatis, ochraceo-brunneis, concentrice sulcatis, indistincte limitatis, areola rubro-brunnea præditis, 3-5 mm. diam.; pycnidiis globoso-depressis, in mesophyllo immersis, trans lucem flavo-ochraceis, 100-200 u. latis, contextu indistincte parenchy-

matico pallidiori, ostiolo subnigro breviter papilliformi erumpentibus; sporulis cylindraceis,  $13-18 \approx 2,5-3$ , rectis, utrinque rotundatis, hyalinis, medio transverse uniseptatis.

Hab. in foliis vivis Calystegiæ sepium in M. Allion prope Orsova. — Ab Asc. Calystegiæ Sacc. et A. Convolvuli Fautr. distincta.

36. Ascochyta citrullina C. O. Smith, Delaw. Experim. Station, 6988 Bull. 70 (1905), Diplodina citrullina (C. O. Sm.) Grossenbacker, Techn. Bull. New York Agric. Exp. Station n. 9 (1909) p. 226.

— Areis albicantibus; pycnidiis depresse globosis poro minuto apicali pertusis, contextu tenuiter parenchymatico, pallide brunneo, 90-150 μ. diam., confertis; sporulis oblongis, v. obovatis utrinque rotundatis, 1-septatis, pro more constrinctis, 14 × 4-5, hyalinis.

Hab. in caulibus Cucumeris Citrulli, quem maxime vexat in America bor., socia Sphærella citrullina de qua efr. suo loco. — Similis Ascochytæ species occurrit in Lycopersico in Britannia. Cfr. Massee Diseas. of cultiv. plants (1910) p. 218.

37. Ascochyta Melonis A. Potebnia, Ann. Mycol. (1910) p. 63, f. 6984 5:5. — Pycnidiis 170-200 μ. diam., pallide flavo-brunneis, subimmersis, ostiolo centralis præditis; sporulis primum unilocularibus, dein medio septatis, constrictis, utrinque rotundatis, quandoque contortis, hyalinis, 15-17 ≈ 5.

Hab. in fructibus, foliis, petiolis caulibusque Cucumeris Melonis quem valde vexat, socia Didymella Melonis, Gouv. Kursk Rossia. — Ab A. Cucumis sporulis fere duplo majoribus diversa. Ascochyta citrullina C. O. Smith inter duas Ascochytas forma intermedia videtur.

38. Ascochyta aristolochicola Hollós, Ann. Mus. Nat. Hung. V (1907) 6985 p. 459. — Pycnidiis epidermide velatis, gregariis, lenticularibus, nigris, poro pertusis, 100-150 p. diam., contextu parenchymatico; sporulis cylindraceis utrinque leniter attenuatis et rotundatis, rectis, medio 1-septatis, non constrictis, hyalinis, 10-13 × 2-2,5.

Hab. in fructibus dejectis Aristolochiæ Clematitis prope Kecskemét Hungariæ. — Asc. Aristolochiæ Sacc. est pycnidiis et sporulis minoribus distincta.

39. Ascochyta Periplocæ Kab. et Bub., Myc. Beitr., Hedwigia Bd. 6986 XLVI (1907) p. 292. — Maculis epiphyllis, rotundatis v. irregularibus, magnis usque ad 1 cm. latis, e brunneo nigro-brunneis, concentrice zonatis, quandoque confluentibus, sordide cinerescen-

tibus, brunneo-purpureo cinctis; pycnidiis epiphyllis, sparsis, sæpe gregariis v. raro etam confluentibus, immersis, epidermide tectis, poro minuto rotundato prominentibus, e brunneo obscure brunneis, globosis, 80-120  $\mu$ . diam., contextu brunneo parenchymatico; sporulis cylindraceis, 6-10  $\approx$  3-4, rectis v. raro subcurvulis, diu unilocularibus et biguttulatis, demum medio transverse uniseptatis, non constrictis utrinque rotundatis, in quoque loculo biguttulatis, hyalinis; sporophoris papilliformibus, brevibus, hyalinis.

Hab. in foliis Periplocæ græcæ prope Turnau Bohemia (Kabat). — Sequens species homonyma et posterior videtur eadem: Ascochyta Periplocæ Hollós, Ann. Mus. Nat. Hung. VII (1909) p. 53. — Maculis irregularibus, brunneis, 1-2 cm. diam.; pycnidiis epiphyllis, gregariis, globulosis, brunneis, poro pertusis, 180-210 μ. diam., contextu celluloso; sporulis cylindraceis, utrinque rotundatis, rectis curvulisve, medio 1-septatis, non v. vix constrictis, 2-4-guttulatis, hyalinis, 8-10 × 3-3,5.

Hab. in foliis languidis Periplocæ græcæ ad Nagy-Körös Hungariæ.

40. Ascochyta tripolitana Sacc. et Trott. in Ann. Mycol. X (1912) 6987 p. 512. — Maculis amphigenis, rotundatis, regularibus, 1-2 cm. diam., albescentibus, determinatis, zona rufescenti marginatis, rugulis minutis subconcentricis peripherice zonatis; pycnidiis in epiphyllo frequentioribus, laxe gregariis, minutis, nigris; 200-250 μ. circ. diam., poro minuto pertusis; sporulis subcylindraceis utrinque obtusis, sæpius curvulis, plerumque 1-septatis, non raro 2-septatis, quandoque continuis et subellipsoideis, plerunque 16-22 × 6,5-7,5, medio constrictis, loculis pro more subinæqualibus, minute 1-guttulatis.

Hab. in foliis vivis Calotropidis proceræ in sabulosis prope El Mallaha inter Tripolin et Tagiura Afr. bor. — Ob sporulas quandoque 2-septatas ad subgen. Staganosporellam (Tassi) nutat.

41. Ascochyta Asclepiadearum Trav. — Syll. XVIII p. 342. — 6988 Var. macrospora Massalongo, Nuove reclute flora micol. veronese p. 9 in Malpighia v. XX (1906). — Maculis folicoliis amphigenis pallide fulvis v. isabellinis, subrotundis et zona rufa limitatis; pycnidiis punctiformibus epiphyllis, crebe dispositis, parietibus membranaceis rubiginosis; sporulis oblongis, hyalinis, utrinque rotundatis, vulgo polari-biguttulatis, demum in medio 1-septatis, 8-12 × 3-3,5.

Hab, ad folia Vincetoxici officinalis circum Tregnago Verona Ital. bor.

42. Ascochyta bohemica Kab. et Bub., Hedwigia XLIV (1905) p. 6989 352. - Maculis epiphyllis utrinque visibilibus, circularibus v. rotundato-angulatis, parvis, ochraceis v. brunneis, purpureo-brunneomarginatis, sæpe confluentibus v. forma indeterminatis; pycnidiis epiphyllis, plus v. minus sparsis, subconfluentibus, lenticularibus, 100-190 µ. latis, immersis, epidermide tectis, poro rotundato papilliformi præditis, pallide ochraceis v. brunneolis, contextu tenui parenchymatico, flavo-brunneolo; sporulis cylindraceis 10-22 × 4-5, utringue rotundatis, rectis v. curvulis, primum unilocularibus dein transverse uniseptatis, non v. vix. constrictis, loculis quandoque in equalibus, hyalinis, multiguttulatis; sporulis 3-4-locularibus quandoque occurrentibus; sporophoris papilliformibus, brevibus, crassiusculis.

Hab. in foliis vivis Campanulæ Trachelii prope Turnau Bohemia (KABAT).

43. Ascochyta Dipsaci Bubák in Handel-Mazzetti Bot. Reise Pont. 6990 Randgeb. in Ann. Naturhist. Hofmus. Wien XXIII (1909) p. 104. — Maculis irregularibus rotundatis, c. 5 mm. latis, ochraceis, obscure brunneo marginatis, centro arescentibus; pycnidiis epiphyllis, etiam infra visibilibus, sparsis, globosis, parum depressis, pallide ochraceis, 100-150 u. diam., poro minuto, rotundato pertusis, contextu luteolo, parenchymatico; sporulis oblongis v. cylindraceis, 6-9 × 3-4, uniseptatis, rarius continuis, ad septum constrictis, utrinque rotundatis, hyalinis; sporophoris brevibus, papilliformibus.

Hab, in foliis Dipsaci pilosi, in montibus ponticis Anatoliæ. — Phyll. Dipsaci proxima v. forte identica (prima ætate).

44. Ascochyta Adenostylis Kab. et Bub., Fünft. Beitr. Pilzfl. Tir. in 6991 Ber. naturw.-med. Ver. Innsbruck XXX Jahrg. (1905-1906) Extr. p. 9. - Maculis epiphyllis irregularibus, magnis, primum sordide griseis, dein obscure brunneis, non marginatis, quandoque confluentibus; pycnidiis paucis in maculis sparsis, subepidermicis, 100-150 µ. latis, globosis, brunneis, poro minuto apertis, contextu tenui parenchymatico, pallide brunneo; sporulis cylindraceis, sæpe leniter biscoctiformibus, 6-13 × 2-3,5, utringue rotundatis. rectis v. raro curvulis, primum unilocularibus, dein medio sep-

Hab. in foliis vivis Adenostylis albifrontis, Zillertal

Tiroliæ. — *Phyllosticta Adenostylis* Allesch. sporulis bilocularibus distincta certe huc pertinet.

45. Ascochyta Cynaræ Maffei, II Contr. Mic. Ligust., Atti R. Ist. 6992 bat. Pavia ser. II, v. XII, Extr. p. 10, tav. fig. 6-8 (1907). — Maculis orbicularibus ochraceis v. albo-griseis; pycnidiis epiphyllis 110-150 μ.; sporulis immersis cylindraceo-ellipsoideis, medio 1-septatis, non v. parum constrictis, hyalinis, guttulatis, granulosis, 8-11 × 3-4.

Hab. in foliis languentibus Cynaræ Scolymi prope Ceriale Albenga, Italiæ bor.

46. Ascochyta Lappæ Kab. et Bub., Hedwigia XLVII (1908) p. 6993 357, Fungi imp. exs. fasc. XI (1909) n. 511. — Maculis epiphyllis, sparsis, rotundatis v. incurvatis, quandoque subpolygoniis, brunneis v. nigris, 2-10 mm. latis e medio sordide albis v. arescendo griseo-cinereisse dirumpentibus, sæpe late confluentibus, quandoque concentrice sulcatis; pycnidiis epiphyllis sparsis v. gregariis immersis, lenticularibus, pallide brunneis, 100-150 μ. diam., poro minuto rotundato papilliformi erumpentibus, contextu parenchymatico pallide brunneo; sporulis cylindraceis 5-10 × 3-4, rectis, apice rotundatis, diu unilocularibus demum medio trasverse uniseptatis, ibique non vel parum constrictis, loculis sæpe inæqualibus, hyalinis, contentu sæpe granuloso; sporophoris papilliformibus.

Hab. in foliis vivis Lappæ minoris prope Jungbunzlau Bohemia (Kabat). — A Ph. Lappæ certe diversa.

47. Ascochyta Tragopogonis Bondarzew, Acta Horti Petropol. XXVI 6994 (1906) p. 43 (extr.). — Pycnidiis rotundatis v. globoso-lenticularibus, sparsis v. gregariis, subinnatis, poro rotundo pertusis, membranaceis, atris, 100-200 μ. diam.; sporulis 1-septatis v. 1-2-guttulatis, ovoideis v. ellipsoideis, 8 × 3,5, hyalinis.

Hab. in caulibus foliisque vivis Tragopogonis majoris in ditione Kursk Rossiæ.

48. Ascochyta polygonicola Kab. et Bub., Myc. Beitr. Hedwigia Bd. 6995 XLVI (1907) p. 292. — Maculis epiphyllis, rotundatis v. irregularibus, brunneolis v. alutaceis, quandoque concentrice zonatis, plerumque irregulariter flavo-marginatis, sæpe confluentibus; pycnidis epiphyllis, sparsis v. gregariis, immersis, epidermide tectis, globosis 60-140 μ. diam., pallide brunneis v. obscure brunneis, apice poro papilliformi rotundato præditis, contextu tenui parenchymatico flavo-brunneo; sporulis cylindraceis utrinque rotundasyll. Fung. XXII (IV-1913)

tis, rectis v. curvulis, diu unilocularibus; contextu subgranuloso, demum trasverse uniseptatis, non constrictis, 6-12 × 3-4,5, hyalinis, bi-v. pluriguttulatis; sporophoris brevibus.

Hab in foliis vivis Polygoni lapathifolii prope Turnau Bohemia (KABAT).

49. Ascochyta Ficus Trav. et Spessa, Bolet. Soc. Brot. XXV (1910) 6996 p. 180, t. III, f. 17. — Pycnidiis in maculis vagis cinereis dense gregariis, vix prominulis, subglobosis, 110-130 × 85-100, atris, contextu spurie pseudoparenchymatico, fuligineo-atro; sporulis cylindraceo-bacillaribus, rectis, medio 1-septatis, ad septum non constrictis, hyalinis, plerumque intus minute granulosis et biguttulatis, 11-14 × 2-21/2.

Hab. in pagina inferiore foliorum Ficus macrophyllæ in horto botanico conimbricensi Lusitaniæ (A. Moller).

50. Ascochyta populicola Kab. et Bub. Hedwigia XLVII (1908) p. 6997 358; Fungi imp. exsice. fasc. XI (1909) n. 514. — Maculis epiphyllis, singulis v. sparsis, rotundatis, brunneis v. fuligineis, arescendo sordide griseo-cinereis, plus v. minus distincte zonatis, 2-10 mm. latis, obscure brunneo-marginatis, sæpe confluentibus; pycnidiis epiphyllis, sparsis v. gregariis, sæpe confertis confluentibusque, brunneis, globosis, lateraliter compressis, 80-150 μ. diam., immersis, poro minuto erumpentibus, contextu parenchymatico obscure brunneo crassiusculo; sporulis cylindraceis, 6-11 × 3-4, rectis v. curvulis, diu unilocularibus, dein medio transverse uniseptatis, ibique non v. leniter constrictis, utrinque rotundatis, hyalinis, 2-4-guttulatis; sporophoris, late papilliformibus, flavidis.

Hab. in foliis emortuis dejectis Populi albæ prope Turnau Bohemia (KABAT).

51. Ascochyta translucens Kab. et Bub., Hedwigia XLIV (1905) p. 6998 353. — Maculis utrinque visibilibus, rotundatis, rotundato-angulosis v. incurvatis, sæpe confluentibus, latis, griseis, medio flavo-alutaceis ibique arescentibus dilacerantibusque; pycnidiis epiphyllis, sparsis v. gregariis, subpellucidis, epidermide diu tectis poro obscuro rotundato erumpentibus, globosi, crassis, 70-130 μ. diam.; contextu parenchymatico tenuis, basi hyalino infra flavo-brunneolo; sporulis elongatis, utrinque rotundatis, plerumque rectis, raro curvulis, 6-11 × 2-3, primum unilocularibus, dein medio transverse uniseptatis, non constrictis, hyalinis; sporophoris brevibus, papilliformibus.

Hab. in foliis vivis Salicis Capreæ prope Turnau Bohemia (Kabat). — Ab A. salicicola Pass. certe diversa.

52. Ascochyta Juelii Bubák, Ann. Mycol. VII (1909) p. 61. — Ma. 6999 culis rotundatis v. subellipticis, utrinque conspicuis, alutaceis, 2-4 mm. lat., brunneo-cinctisi pycnidiis amphigenis, globosis, leviter complanatis, subepidermicis, ostiolo parvo, obscuriori, papilliformi instructis, 90-120 μ. cr., contextu parenchymatico pallide brunneo; sporulis ellipsoideis v. raro cylindraceis, 8-16 × 2-3,5, sensim utrinque acutatis, medio septatis; sporophoris brevibus, papilliformibus, hyalinis.

Hab. in foliis vivis Colchici autumnalis prope Purkerdsdorf Austria inf.

53. Ascochyta hortensis Kab. et Bub., Hedwigia XLIV (1905) p. 7000 353. — Maculis utrinque visibilibus, rotundatis v. rotundato-angulatis, ex alutaceo brunneolis, purpureo-brunneo-marginatis v. non, e medio arescendo sordide albis se disrumpentibus, magnis confluentibus; pycnidiis amphigenis, sparsis v. concentrice dispositis, immersis, epidermide tectis, globosis, 70-120 μ. diam., ostiolo rotundato papilliformi erumpentibus, primum pallidis, demum brunneis subinde obscure brunneis, contextu parenchymatico, tenui, brunneo; sporulis elongatis v. breviter subcylindraceis, 5-9 × 3-3,5, apice rotundatis, diu unilocularibus, demum medio uniseptatis, non constrictis, hyalinis.

Hab. in foliis Funkiæ albomarginatæ prope Turnau Bohemia (KABAT). — Socium adest Fusarium Funkiæ.

54. Ascochyta Gladioli Trav. et Spessa, Bolet. Soc. Brot. XXV (1910) 7001 p. 180, t. III, f. 20. — Pycnidiis in areolis dealbatis gregariis, epidermidem minute pustulatim sublevantibus, punctiformibus, globoso-depressis, 140-170 μ. diam., poro latiusculo pertusis, fusco-atris, excipulo minute pseudoparenchymatico melleo-fuligineo; sporulis cylindraceo-bacillaribus, medio septatis, non constrictis, rectis vel leniter curvulis, 12-15 × 2¹/₂-3, intus quandoque minute pluriguttulatis, hyalinis.

Hab. in scapis exsiccatis Gladioli cardinalis in horto botanico conimbricensi Lusitaniæ (A. MOLLER).

55. Ascochyta Aspidistræ Massee, Diseas. cult. Plants (1910) p. 431, 7002
f. 133. — Pycnidiis in maculis latis gregarie horizontaliterque dispositis; sporulis subfusoideis, 1-septatis, 12-17 × 2-2,5.
Hab. in foliis Aspidistræ luridæ cultæ, Amer. bor.

56. Ascochyta pellucida Bubák, Ann. Mycol. IV (1906) p. 112. — 7003

Maculis virescentibus in foliis jam dealbatis, magnis, irregularibus; pycnidiis epiphyllis, globosis, 100-180 u. diam., rubro-brunneis, subpellucidis, contextu tenui indistincto, ostiolo rotundato irregulariter aperto; sporulis cylindraceis 6-11 (raro usque ad 13 μ.) > 2,5-3,5, rectis v. curvulis, uniseptatis, utrinque rotundatis, hyalinis; sporophoris hyalinis brevibus.

Hab. in foliis emortuis Callæ palustris prope Tabor Bohemia.

57. Ascochyta arophila Bubák, Bull. Herb. Boiss., II ser., VI (1906) 6704 p. 476. — Maculis rotundatis v. subellipticis, utrinque visibilibus, usque ad 8 mm. latis, subbrunneis, medio arescendo albidis, linea angusta, brunneo-rubra limitatis, contextu obscure brunneo, late irregulariterque erumpenti; sporulis fusoideis, 9-18 × 2-2,5, medio uniseptatis, apice angustatis, rectis v. curvis, hyalinis; sporophoris papilliformibus præditis.

Hab. in foliis vivis Ari italici prope Ulcinj Montenegro.

58. Ascochyta guadriguttulata Kab. et Bub. Hedw. L (1909) p. 40. 6705 - Maculis amphigenis lineatis, irregularibus, confluentibus, magnam folii partem occupantibus, alutaceo-brunneis, sæpe obscurius limbatis, tandem arescendo griseis; pycnidiis sæpius amphigenis, mesophyllo innatis, epidermide diu tectis et eam leviter elevatibus, lenticularibus, ochraceo-brunneis, 120-180 µ. diam., poro rotundo latiusculo, contextu tenui laxe celluloso; sporulis copiosis, cylindraceis 12-26 × 4,5-6, utringue v. uno apice tennuatis, medio 1-septatis, sepe constrictulis, 4-guttulatis, cellula altera, sæpe crassiore; sporophoris cylindraceis, 12 μ. long.

Hab. in foliis Sparganii ramosi prope Turnau Bohemia. 59. Ascochyta Tragi Cruchet in Bull. Soc. Vaud. Sc. Nat. XLIV 6706 (1909) p. 475. — Maculis nullis; pyenidiis punctiformibus, parvis, vix 0,1 mm. diam., apice ostiolatis, immersis, dein fere prominentibus; sporulis uniseptatis, minute guttulatis, 4-5 gutt. in quaque cellula, ovoideo-oblongis, non constrictis, utrinque obtusis, hyalinis, 17-18 \* 4-5.

Hab. in foliis radicalibus siccis Tragi racemosi, prope Sion Vallesia Helvetiæ.

60. Ascochyta kerguelensis P. Henn., Deutsche Südpolar-Exped. 6707 Bd. VIII (1906) Extr. p. 14, t. II, f. 19. — Pycnidiis innatoerumpentibus, minutissimis, atris, plerumque gregariis, subglobosis, membranaceis, poro pertusis, 50-60 µ. diam.; sporulis obtu-

siusculis, rectis v. curvulis, 2-guttulatis, medio 1-septatis, haud constrictis, hyalinis, 12-15 × 3.5-4.5.

Hab. in foliis Poæ kerguelensis, Kerguelen (WERTH).

61. Ascochyta antarctica P. Henn., Deutsche Südpolar-Exped. Bd. 6708 VIII (1906) Extr. p. 13, t. II, f. 17. — Pyenidiis sparsis, innato-erumpentibus, hemisphærico-sublenticularibus, poro pertusis, membranaceis, brunneo-fuscidulis, 150-180 μ. diam.; sporulis oblongo-ellipsoideis, utrinque obtusis, 4-guttulatis, medio 1-septatis, haud constrictis, hyalinis, 15-22 × 6-8.

Hab. in foliis siccis Poæ Cookii, Insulæ Possessionis (WERTH).

## II. Ascochytella Tassi (ut gen.) Sporulæ dilute coloratæ

62. Ascochyta prosopidicola Speg., Myc. Argent. V, p. 368, in Annal. 6709 Mus. Nac. Buenos Aires XX (1910) sub Ascochytella. — Maculis arescentibus dimidium superum totum foliorum occupantibus, linea callosa, sæpe in areolam purpurascentem transeunte, a parte infera adhuc viva separatis; pycnidiis amphigenis epidermide tectis dein suberumpentibus, lenticularibus, 100 μ. diam., ostiolo obsoleto, atris, membranaceis; sporulis elongato-ellipsoideis, utrinque subacutiuscule rotundatis, 10-12 × 3, ad septum non constrictis, loculis æquilongis chlorinis.

Hab. ad folia languida Prosopidis cujusdam Orán, Jujuy, Argentina Amer. austr.

63. Ascochyta clematidina Thüm. — Syll. III p. 396 — var Tha-6710 lictri Davis, Trans. Wisconsin Ac. of Sc. v. XVI p. II (1909) p. 757. — Differt pycnidiis minoribus; sporulis 8-10 × 2-3.

Hab. in Thalictro dioico, Madison, Wisconsin Amer. bor.
64. Ascochyta Cotyledonis H. Zimmermann in Verhandl. naturforsch. 6711
Ver. Brünn XLVII (1908-1909) p. 36, t. III et t. I, f. 9 (extr.)
— Maculis usque ad 5 cm. cr., griseis, nigro-purpureo-marginatis; pycnidiis plerumque epiphyllis, concentrice dispositis, prominentibus, brunneis, globosis, 200-250 μ. diam., sporulis cylindracis, 6-10 × 3-3,5, 2-4-guttulatis, in cirro subflavis.

Hab. in foliis vivis Cotyledonis gibbifloræ, in calidario cultæ, Eisgrub Austriæ. — Ascoch. Telephii affinis sed præcipue maculis et pycnidiis majoribus satis diversa.

65. Ascochyta Tiliæ Kab. et Bub., Myc. Beitr., Hedwigia Bd. 6712 XLVI (1907) p. 293. — Maculis epiphyllis, irregularibus v. subrotundatis usque ad 1 cm. latis, saepe confluentibus, sordide aluta-

ceis, demum arescendo griseo-cinereis, purpureo-brunneo-marginatis v. non; pycnidiis epiphyllis, conspicuis, confluentibus, immersis, epidermide tectis, poro minuto rotundato erumpentibus. globosis, 100-140 u. diam., primum flavo-brunneis, dein brunneis. contextu parenchymatico flavo-brunneo; sporulis ovoideis, ellipsoideis v. breviter cylindraceis, utrinque rotundatis, rectis, v. raro curvulis, diu unilocularibus, demum transverse uniseptatis, non constrictis, 6-10 × 3-4, hyalinis v. viridulis; sporophoris brevibus, papilliformibus.

Hab. in foliis vivis Tiliæ dasystylæ prope Turnau, Bohemia (KABAT).

66. Ascochyta Camphoræ Turconi in Atti R. Ist. bot. Pavia (1905) 7013 XI, p. 314-318, tab. XXII, fig. 7-9. — Maculis amphigenis arescendo dealbatis, in pagina superiore fusco-marginatis, in inferiore zona purpurea evanescente limitatis, circularibus v. rotundato-sinuosis; pycnidiis numerosis, plerumque epiphyllis, in macula sine ordine dispositis, minutis, 150-200 µ. diam.; sporulis fusoideis, utrinque subacutatis, medio uniseptatis, ad septum non constrictis, dilute olivaceis, 10-12 × 3-4,5.

Hab. in foliis Camphoræ glanduliferaæ cultæ in horto botanico, Pavia Italia borealis.

67. Ascochyta robinicola Hollós, Ann. Mus. Nat. Hung, V (1907) 7014 p. 459. — Pycnidiis sparsis gregariisve, epidermide velatis, lenticularibus, brunneis, poro pertusis, 140-160 µ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, medio 1-septatis, non v. vix constrictis, dilute ochraceis, 8-10 × 3.

Hab. in leguminibus dejectis Robiniæ Pseudacaciæ prope Kecskemét Hungariæ. — Asc. Robiniæ Sacc. pycnidiis et sporulis majoribus distincta.

68. Ascochyta Eriobotryæ Voglino, Ann. R. Acc. Agric. Torino vol. 7015 LI (1908) Extr. p. 22. — Maculis epiphyllis, initio punctiformibus, castaneo-fuliginosis, dein orbicularibus, oblongis, exarido-griseis, albicantibus, zona castanea cinctis, plerumque confluentibus et fere totum marginem folii occupantibus; pycnidiis epiphyllis. numerosis, subgregariis, spheroideis, initio epidermide velatis dein erumpentibus, pertusis, 80-100-120 µ. latis; sporulis oblongo-ellipsoideis, leniter curvulis et ad septum vix constrictis. chlorinis  $12 \times 3$ ; sporophoris brevissimis  $4.6 \times 2$ .

Hab. in foliis Eriobotry e japonice in hortis Druent et Torino, Ital. bor.

69. Ascochyta syringicola Bubák et Kabát, Hedwigia XLII (1908) 7016 p. 360. — Maculis epiphyllis, sparsis, quandoque confluentibus, parvis, rotundato-angulosis, alutaceis, obscurius v. purpureo-brunneo-marginatis; pycnidiis epiphyllis, punctiformibus, sparsis, immersis, diu epidermide tectis, ostiolo minuto rotundato erumpentibus, globosis, subdepressis 110-180 u. diam., e brunneo obscureo brunneis, contextu tenui pallide brunneo, parenchymatico; sporulis ellipsoideis v. cylindraceis, 18-26 × 6-9, rectis v. curvulis, transverse uniseptatis, ibique plus v. minus constrictis, fumosogriseolis; sporophoris papilliformibus, flavidis.

Hab. in foliis vivis Syringæ vulgaris prope Turnau Bohemia (KABAT). — Ab Asc. Syringæ Bres. maculis, pycnidiis, sporulis diversa.

70. Ascochyta mabiana Sacc. Ann. Mycol. VIII (1910) p. 338. - 7017 Maculis sordide fusco-griseis, vage atro-marginatis Aecidio rhytismoideo var. Mabæ contrapositis; pycnidiis laxe gregariis, erumpentibus, diu tectis, globoso-lenticularibus, 140-160 µ. diam., poro obsolete apertis; sporulis ellipsoideis utrinque acutiuscule rotundatis, 5,5-6 × 2,8, diblastis obsoleteque 1-septatis, non constrictis, ochraceo-flavidulis.

Hab. in foliis languidis Mabæ abyssinicæ, Ghinda al Dongollo, alt. 960 m., Hamasen Erythræa (HADR. Fiori).

71. Ascochyta Chrysanthemi Stevens, Botan. Gazette XLIV (1907) 7018 p. 246. cum icon. — Pycnidiis minutis, immersis, erumpentibus, gregariis v. sparsis, hemisphæricis, flavidis, 100-200 µ. diam., plerumque 150 µ.; ostiolo centrali, parvo, saturatius marginato sæpe breviter rostellato; superficie reticulatæ; mycelio copioso, adnato, superficiali, floccoso, septato; sporulis oblongis, irregularibus,  $3-6.2 \times 10-20$ , plerumque  $10 \times 6.2$ , apice obtusis v. acutis; plasmate vacuolato, hyalino v. in massa roseolo.

Hab. in floribus, petiolis caulibusque Chrysanthemi indici, North Carolina Amer. bor.

72. Ascochyta Cyani Cruchet in Bull. Soc. Vaud. Sc. Nat. XLIV 7019 (1909) p. 474. — Maculis nullis v. parum manifestis; pycnidiis punctiformibus, parvis, 180-100 u. diam., globulosis, dein depressis, apice pertusis, irregulariter dispositis, primum immersis dein fere prominentibus; sporulis ellipsoideo-oblongis, utrinque rotundatis, uniseptatis, in quoque loculo biguttulatis, ad septum leniter constrictis, leniter virescentibus, 15 × 4-5.

Hab. in foliis siccis fere putridis Centaureæ Cyani, prope Sion, Valais Helvetiæ.

73. Ascochyta Haworthiæ Trinchieri, Rnd. R. Ac. Sc. Napoli (1909) 7020 fasc. 8-12, Extr. p. 4. — Pycnidiis minutis, sparsis vel subgregariis, innato-erumpentibus, depresso-subglobosis, pertusis, atris, 171-257 µ. diam., 98-196 µ. altis, excipulo valido, parenchymatico, flavescente brunneo donatis; sporophoris nullis visis; sporulis ellipsoideis vel ovoideis, utringue obtusis, quandoque uno apice acutiusculis, primo continuis, hyalinis, demum 1-septatis, non constrictis, loculis 1-guttulatis, chlorinis, 12-17 × 4,5.

Hab. in scapis siccis Haworthiæ tortuosæ, in horto bo-

tanico neapolitano Ital. austr. (Trinchieri).

74. Ascochyta Sémeles Sacc. Ann. Mycol. VI (1908) p. 555. — 7021 Maculis amplis oblongis, 2-3 cm. diam., amphigenis, rufo-marginatis, candicantibus; pycnidiis amphigenis, sed supra copiosioribus, gregariis, nigris, globoso-lenticularibus, 150-180 p. diam. pertusis, minute cellulosis; sporulis breviter fusoideis, 8-9 × 3, dilute olivaceis, medio septatis, non constrictis.

Hab. in foliis languidis Semeles androgynæ (Smilacac.) in Horto botanico Panormitano, Sicilia (J. H. MATTEI).

75. Ascochyta Festucæ-erectæ P. Henn., Deutsche Südpolar-Exped. 7022 Bd. VIII (1907) Extr. p. 14, tab. II, fig. 18. — Pycnidiis sparse gregariis, punctiformibus, atris, innato-erumpentibus, sublenticularibus, membranaceis, atro-brunneis, poro pertusis, 60-70 μ. diam.: sporulis fusoideis, acutiusculis, medio 1-septatis, haud constrictis, eguttulatis, hyalino-cyanescentibus, 6-9 × 2,5-3.

Hab. in folis siccis Festucæ erectæ, Kerguelen (Werth).

Ascochytæ species sequentes, ex Kl. Herb. viv. mycol., in Sylloge nec non in Allescherii Deutsch. Pilze omissæ sunt quia nullibi descriptæ. Hic memorantur ut ex exempl. orig. possint revideri.

1. Ascochyta Orchidis Rabenh., in Kl. Herb. viv. mycol. n. 988 7023 (1846) [nomen nudum].

Hab. in foliis Orchidis sp. pr. Dresden in Germania.

2. Ascochyta Humuli Lasch in Kl., Herb. viv. mycol. n. 680, Bot. 7024 Zeit. (1845), p. 68. — Macula pallide fusca; pycnidiis subrotundis nigrescentibus; cirris tenuissimis albis.

Hab. in foliis Humuli Lupuli pr. Driesen Germaniæ. -Est ne eadem ac Asc. Humuli Bubák?

3. Ascochyta Atriplicis Lasch in Kl. Herb. viv. mycol. n. 861 (1846) 7025 [nomen nudum].

Hab. in foliis Atriplicis sp. in agro Driesen Germaniæ.

- 4. Ascochyta acerina Lév. in Demid. Voy. p. 115, t. V, f. 7 (1842). 7026 Ita vocanda A. arenaria Lév. Syll. X, p. 296 sic dicta ex err. typogr. pro «acerina». Verisimiliter est Septorice spec. sed non congruit cum Sept. acerina Peck.
- 5. Ascochyta Galii Lasch in Kl. Herb. viv. mycol. n. 1254 (1849) 7027 [nomen nudum].

Hab. in foliis Galii sp. in agro Driesen Germania.

6. Ascochyta Epilobii Rabenh. in Kl. Herb. viv. mycol. n. 1656 (1852) 7028 [nomen nudum].

Hab. in foliis Epilobii sp in agro Dresdensi Germaniæ.

7. Ascochyta Dulcamaræ Lasch in Kl. Herb. viv. mycol. n. 858 (1846) 7029 [nomen nudum].

Hab. in foliis Solani Dulcamaræ in agro Driesen Germaniæ.

8. Ascochyta Lychnidis Lasch in Kl. Herb. viv. mycol. n. 857 (1846) 7030 [nomen nudum].

Hab. in foliis Lychnidis in agro Driesen Germaniæ.

9. Ascochyta Graminum Lasch in Kl. Herb. viv. mycol. n. 1155, 7081 Bot. Zeit. (1848) p. 293 — Maculis fuscis medio pallescentibus; cirris albo-incarnatis.

Hab. in foliis Agropyri pr. Driesen Germania.

10. Ascochyta Geranii Rabenh. in Kl. Herb. viv. mycol. n. 1655 7082 (1852) [nomen nudum].

Hab. in foliis Geranii sp. in agro Dresdensi Germaniæ.

11. Ascochyta Teucrii Lasch in Kl., Herb. mycol. n. 1455, Bot. Zeit. 7088 (1850) p. 439. — Cirris albis; ascis (sporulis?) elongatis.

Hab. in foliis Teucrii Scordii in agro Driesen Germaniæ.

12. Ascochyta Hieracii Lasch in Kl. Herb. viv. mycol. n. 1156, Bot. 7084 Zeit. (1848) p. 294. — Cirris tenuissimis albis.

Hab. in foliis Hieracii Pilosellæ pr. Driesen.

13. Ascochyta Hyoscyami Lasch in Kl. Herb. viv. mycol. n. 864, 7035 Bot. Zeit. (1846) p. 46. — Ascis? (= sporulis) leviter arcuatis.

Hab. in foliis Hyoscyami in agro Driesen Germaniæ.

14 Ascochyta Silenes Lasch in Kl. Herb. viv. mycol. n. 1256 (1849) 7036 [nomen nudum].

Hab. in foliis Silenes sp. in agro Driesen Germania.

15. Ascochyta Rubi Lasch in Kl. Herb. viv. mycol. n. 1157, Bot. Zeit. 7087

(1848) p. 294. — Maculis pallidis; pycnidiis subrotundis ex fusco nigricantibus; cirris albis.

Hab. in foliis Rubi saxatilis in agro Driesen.

16. Aschochyta Polygoni Rab. in Kl. Herb. viv. mycol. n. 990 (1846) 7038 [nomen nudum].

Hab. in foliis Polygoni in Germania (KRETZSCHMAR).

- APIOSPORELLA Speg., Myc. Argent. V p. 364, in Anal. Mus. Nac. Buenos Aires XX (1910) (Etym. ab Apiospora, ob sporularum similitudinem). Notæ externæ Ascochytæ; sporulæ excentrice septatæ, loculo supero maximo, infero minuto appendiculiformi, hyalinæ.
- 1. Apiosporella macrospora Speg., l. c. p. 364, cum icon. Maculis 7089 nullis; pycnidiis sparsis, parenchymate innatis epidermide tectis, non v. vix prominulis, lenticularibus, 150 μ. diam., ostiolo impresso pertusis, atris, contextu grosse parenchymatico pellucido olivaceo; sporulis ellipsoideo-elongatis, ad septum non constrictis, utrinque subacutiusculis, 28-30 × 7-8, loculo supero (18-20 μ.) quam infero duplo longiore, hyalinis, levibus.

Hab. ad vaginas et folia arida Hordei jubati, Rio Grande Tierra del Fuego Argentina Amer. austr.

- p. 148 (Etym. ceras cornu et pycnidium). Foliicola; pycnidia superficialia, nigra, subcorniculata v. in collum plus minus incurvatum producta; contextu tenui; sporulæ biloculares, hyalinæ. Inter Sphærioideas et Excipulaceas medium genus.
- Ceratopycnidium citricola Maubl., l. c. p. 148, cum icon. Py- 7040 cnidiis 0,50-0,75 mm. alt. 0,30 mm. cr.; sporophoris plus v. minus nodulosis, 10 × 3; sporulis solitariis oblongis, apice rotundatis, basi subangustatis, medio uniseptatis, subconstrictis, 7,5-10,5 × 3-3,5.

Hab. parasitice in excrementis insecti cujusdam in foliis Citri deliciosæ, Brazzaville Congo Africæ.

- DIPLODINA West. Syll. III p. 411, X p. 311, XI p. 526, XIV p. 949, XVI p. 936, XVIII p. 351.
- Diplodina albanica Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 7041
   p. 476. Pycnidiis sparsis, subepidermicis, rotundatis v. ellipsoideis, depressis, 250-350 μ. diam. v. usque ad 0,5 mm. long., quandoque binis longitudinaliter confluentibus, contextu obscure casta-

neo-brunneo, breviter erumpenti-papillato; sporulis fusoideis, 11-  $15 \approx 2$ , rectis v. curvulis, medio transverse uniseptatis, in quoque loculo biguttulatis.

Hab. in caulibus siccis Ranunculi Villarsii, prope Andrijevica Montenegro.

2. Diplodina Pæoniæ Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 344. 7042 — Pycnidiis epidermide tectis, gregariis, brunneis, poro pertusis, ellipsoideis, 210-280 × 120-210, contextu parenchymatico; sporulis oblongis, medio 1-septatis, non v. vix constrictis, dilute flavidulis, 10-13 × 2,5-3.

Hab. in ramis siccis Pæoniæ arboreæ, Kecskemét Hungariæ.

3. Diplodina Sophiæ Bubák, Ann. Mycol. IV (1906) p. 112. — Py-7048 cnidiis subepidermicis, sparsis v. gregariis, globosis v. parum depressis, 120-220 μ. latis, nigris, poro rotundato, centrali præditis, contextu flavo-brunneo, tenui parenchymatico; sporulis fusoideis, 9-15 × 2-3, utrinque angustatis, rectis, raro curvulis, flavido-brunneolis; sporophoris brevibus, cylindraceis, hyalinis.

Hab. in caulibus Sisymbrii Sophiæ prope Tábor Bohemia. 7044

4. Diplodina Lepidii Hollós, Ann. Mus. Nat. Hung. V (1907) p. 461.
— Pycnidiis epidermide velatis, gregariis, lenticularibus, fuscis, poro pertusis, 200-230 μ. diam., contextu parenchymatico; sporulis ellipsoideis v. plerumque cylindraceis, utrinque rotundatis, medio 1-septatis, non constrictis, flavidulis, 8-11 × 2-3.

Hab. in caulibus siccis Lepidii crassifolii prope Kecskemét Hungaria.

5. Diplodina Mahoniæ Hollós, Ann. Mus. Nat. Hungar. VII (1909) 7045 pag. 53. — Pycnidiis gregariis, epidermide velatis, lenticularibus, atris, poro pertusis, 170-210 μ. diam., contextu celluloso; sporulis ellipsoideis, medio 1-septatis, non constrictis, dilute ochraceis, 8-10 × 3-3,5.

Hab. in ramulis siccis Mahoniæ Aquifolii ad Kecskemét Hungariæ.

6. Diplodina Pteleæ Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 346. 7046 — Pycnidiis epidermide tectis, globoso-depressis, brunneis, poro pertusis, 100·150 μ. diam.; sporulis oblongis, utrinque rotundatis, medio 1-septatis, leviter constrictis, dilute ochraceis, 8-12 × 3-3,5.

Hab. in ramulis emortuis Pteleæ trifoliatæ, Nagy-Körös Hungariæ.

7. Diplodina pteleicola Hollós, Növényt. Közlemén. VI (1907) Extr. 7047

p. 4. — Pycnidiis dense gregariis, superficialibus, fuscis, poro pertusis, ellipsoideis,  $180-200 \times 100-120$ , contextu parenchymatico; sporulis cylindraceis, utrinque attenuatis, rectis v. curvulis, medio 1-septatis, non constrictis, dilute flavidulis,  $10-12 \times 2-2.5$ .

Hab. in ramulis siccis decorticatis Pteleæ trifoliatæ, Kecskemét Hungariæ.

8. Diplodina anomala Sacc., Not. Myc. VII, Ann. Myc. IV (1906) 7048 p. 277. — Pycnidiis densiuscule gregariis, erumpenti-emergentibus, majusculis, globosis, obtusis, 500 μ. diam., peridermio lacerato cinctis, subcarbonaceis, opace nigris, glabris, vertice demum irregulariter dehiscentibus; contextu firmo, grosse parenchymatico, fuligineo; nucleo farcto, subceraceo, albido; sporulis fusiformibus, utrinque acutis, rectis v. curvulis, 16-17 × 4-4,3, hyalinis, plasmate bipartito, demum tenuiter 1-septatis, non constrictis; sporophoris acicularibus sæpe flexuosulis, variis, 10-26 × 2, ex hyalino viridulis, e strato proligero crassiusculo virescenti oriundis.

Hab. in cortice atrato Aceris sp. Lyndonville N. Y. Amer. bor. (C. E. FAIRMAN). — Pycnidiis ceraceo-farctis, sporulis angustis, ostiolo obsoleto species in genere aliquid anomala.

9. Diplodina fusispora Peck, Bull. Torr. Bot. Club XXXVI (1909) 7049 p. 337. — Pycnidiis 0,5-1 mm. latis, dense gregariis, aliquando leviter cæspitosis, irregularibus v. subglobosis, erumpentibus, atris; sporulis breve fusoideis, utrinque acutis, hyalinis, primo simplicibus, deinde uniseptatis, 16-20 × 4-5.

Hab. in ramis Aceris saccharini, River Forest Illinois Amer. bor. (E. T. et S. A. HARPER).

10. Diplodina atra (Potebnia) Sacc. et Trav. — Syll. XIX, p. 615 — 7050 Ascochyta atra Potebnia, Quelq. Champ. de la Russie mérid. Charchov (1900) p. 9, tab. IV, f. 10-11. — Pyenidiis sparsis, punctiformibus, globosis, subtectis, prominulis, atris, membranaceis, contextu parenchymatico, 200-250 μ. diam., ostiolo imperspicuo; sporulis oblongis, utrinque rotundatis, constricto-1-septatis, minute pluriguttulatis, hyalinis, 11-12 × 1,7-2; sporophoris linearibus, 15-20 μ. longis.

Hab. in ramis vivis Vitis viniferæ gummosi bacillari (?) affectis, socia Pyrenopeziza Vitis in districto Melitopoli Rossiæ meridionalis.

11. Diplodina Althææ Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 342.
 Pycnidiis epidermide tectis, sparsis, globoso-depressis, fuscis,

poro pertusis, 150-180  $\mu.$  diam., contextu parenchymatico; sporulis ellipsoideis, medio 1-septatis, hyalinis, 8-10  $\approx$  3.

Hab. in caulibus siccis Altheæ officinalis, prope Kecskemét Hungariæ.

12. Diplodina Hibisci Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 344. 7052
 — Pycnidiis epidermide tectis, ostiolo minuto erumpentibus, globosis, nigris 280-320 μ. diam.; sporulis cylindraceis, rectis v. leviter curvulis, utrinque attenuatis, rotundatis, medio 1-septatis, non v. vix constrictis, hyalinis, 10-14 × 3,5-4.

Hab. in ramis emortuis Hibisci syriaci, Kecskemét Hungariæ.

13. Diplodina rhoina Hollós, Ann. Mus. Nat. Hung. (1907) V p. 461. 7058 — Pycnidiis semiimmersis, gregariis, depresso-globosis, nigris, poro pertusis, 120-140 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, medio 1-septatis, non v. vix constrictis, flavidulis. 10-12 × 3.5-4.

Hab. in ramis decorticatis Rhois glabræ, Nagy-Körös Hungariæ.

14. Diplodina Ampelopsidis Hollós, Ann. Mus. Nat. Hung. V (1907) 7054 p. 460. — Pycnidiis erumpentibus, dense gregariis, confluentibus, depresso-globosis, fuscis, poro pertusis, 160-210 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis v. cylindraceis, utrinque attenuatis et rotundatis, medio 1-septatis, non constrictis, dilute flavidulis, 8-13 × 3-4.

Hab. in ramulis emortuis Ampelopsidis quinquefoliæ, Kecskemét Hungariæ.

15. Diplodina Gypsophilæ Hollós, Ann. Mus. Nat. Hung. V (1907) 7055 p. 50. — Pycnidiis epidermide tectis, dense gregariis, erumpentibus, depresso-globosis, nigris, ostiolo papillato, 300-350 μ. diam., contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, medio 1-septatis, non constrictis, biguttulatis vel granulosis, hyalinis, 16-18 × 2-3,5.

Hab. in caulibus siccis Gypsophilæ fastigiatæ pr. Kecskemét Hungariæ.

16. Diplodina Polygalæ Hollós, Ann. Mus. Nat. Hung., IV (1906) 7056 p. 345. — Pycnidiis epidermide tectis, gregariis, globoso-depressis, nigris, poro pertusis, c. 140 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, medio 1-septatis, non v. vix constrictis, dilute ochraceis, 10-12 × 4-5,5.

Hab. in caulibus siccis Polygalæ comosæ prope Izsák Hungariæ.

17. Diplodina Deutziæ Hollós, Ann. Mus. Nat. Hung. V (1907) p. 49. 7057 — Pycnidiis epidermide tectis, dense gregariis, lenticularibus, nigris, poro pertusis, 180-280 μ. diam., contextu parenchymatico; sporulis oblongis, utrinque attenuatis, medio 1-septatis, non constrictis, flavidulis, 9-11 \* 3,5 4.

Hab. in ramulis siccis Deutziæ crenatæ, Kecskemét Hungariæ.

18. Diplodina Cydoniæ (Schulz. v. Mügg.) Sacc. et Trott., Micropera 7058 Cydoniæ Schulz. v. Mügg., Verh. zool.-bot. Ges. Wien (1871) p. 1238, tab. XIII, fig. 16. — Pycnidiis subglobosis, subcutaneo-erumpentibus, cæspitulosis, astomis, nigricantibus, intus flavo-pallidis, cæspitulis 600-1000 μ. d.; sporulis late fusoideis, utrinque obtusulis, 8 ≈ 3,5, medio 1-septatis, non constrictis, madore cirrose exsilientibus; sporophoris non observatis.

Hab. in ramis corticatis Cydoniæ vulgaris in Hungaria.

19. Diplodina Rhodotypi Hollós, Növenyt. Közlemén VI (1907) Extr. 7059 p. 40. — Pycnidiis epidermide tectis, dense gregariis, lenticularibus, umbrinis, poro pertusis, 100-120 μ. diam., contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, medio 1-septatis, non constrictis, 2-4-guttulatis, hyalinis, 8-12 × 3-3,5.

Hab. in ramis emortuis Rhodotypi kerrioidis, Kecskemét Hungariæ.

20. Diplodina Gleditschiæ Hollós, Ann. Mus. Nat. Hung. VI (1908) 7060 p. 531. — Pycnidiis superficialibus, dense gregariis, nigris, poro pertusis, ellipsoideis, 240-350 × 160-240, contextu celluloso; sporulis oblongo-ellipsoideis, diu continuis et hyalinis, demum medio 1-septatis, non v. vix constrictis, dilute ochraceis, 9-10 × 3-3,5.

Hab. in ramis siccis decorticatis Gleditschiæ Triacanthi, Kecskemét Hungariæ.

21. Diplodina Coluteæ Hollós, Ann. Mus. Nat. Hungar. VIII (1910) 7061 p. 4. — Pycnidiis sparsis, epidermide velatis, lenticularibus, umbrinis, poro pertusis, 210-240 μ. diam., contextu celluloso; sporulis ellipsoideis, medio 1-septatis, non constrictis, biguttulatis, dilute olivaceis, 8-10 × 3-3,5.

Hab. in ramulis emortuis Coluteæ arborescentis, Nagy-Körös Hungariæ.

22. Diplodina Robiniæ Peck, N. Y. St. Mus. Bull. n. 131 (1909) p. 21. 7062 Pycnidiis minutis, in ligno insculptis, sparsis v. aggregatis, erumpentibus, aliquando linea nigra circumscriptis, pallidis v. nigricantibus; sporulis oblongo-fusiformibus, rectis, uniseptatis, hyalinis,  $10-12 \approx 4-5$ .

Hab. ad ramos emortuos Robiniæ Pseudacaciæ, Barry-Town, Dutchess Co. Amer. bor.

23. Diplodina Genistæ Hollós, Ann. Mus. Nat. Hungar. IV (1906) 7063 p. 343. — Pycnidiis epidermide tectis, sparsis, globoso-depressis, fuscis, poro pertusis, 140-180 p. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, utrinque rotundatis, medio 1-septatis, non v. vix constrictis, dilute ochraceis, 8-10 × 3-3,5.

Hab. in ramis emortuis Genistæ tinctoriæ prope Kecskemét Hungariæ.

24. Diplodina Glycyrrhizæ Hollós, Ann. Mus. Nat. Hungar. V (1907) 7064 pag. 460. — Pycnidiis dense gregariis, superficialibus, globulosis, nigris, poro pertusis, 160-210 μ. diam., contextu parenchymatico; sporulis cylindraceis, utrinque leniter attenuatis et rotundatis, medio 1-septatis, non constrictis, flavidulis, 10-12 × 2.

Hab. in caulibus siccis Glycyrrhize echinate pr. Kecskemét Hungarie.

25. Diplodina Wistariæ Hollós, Növényt. Közlemén. VI (1907) Extr. 7065 p. 5. — Pycnidiis epidermide tectis, dense gregariis, lenticularibus, fuscis, poro pertusis, 140-210 μ. diam., contextu parenchymatico; sporulis ellipsoideis, medio 1-septatis, non constrictis, flavidulis, 8-10 ≈ 3,5-4.

Hab. in ramis siccis Wistariæ sinensis prope Kecskemét Hungariæ.

26. Diplodina Pimpinellæ Hollós, Ann. Mus. Nat. Hung. VI (1908) 7066 pag. 531. — Pycnidiis dense gregariis, superficialibus, globulosis, nigris, 170-210 μ. diam., ostiolo prominulo, contextu parenchymatico; sporulis ellipsoideis, initio continuis et hyalinis, demum medio 1-septatis, non v. vix constrictis, deorsum attenuatis, dilute brunneis, 8-10 × 3,5-4,5.

Hab. in caulibus siccis Pimpinellæ Saxifragæ pr. Kecskemét Hungariæ.

27. Diplodina fœniculina Speg., Fungi Chilenses (1910) pag. 157. — 7067 Pycnidiis numerosis confertis, epidermide velatis, lenticularibus, parvis, 150-180 μ. diam., olivaceis, tenui-membranaceis, parenchymaticis, ostiolo latiusculo impresso perforatis; sporulis e cylindraceo subclavulatis, medio uniseptatis, non v. vix constrictulis, fumosis, 14-18 ≈ 5-6.

Hab. in caulibus siccis subputrescentibus Fæniculi piperiti in collibus prope Batuco Chile Amer. austr.

28. Diplodina Lycopersici Hollós, Ann. Mus. Nat. Hung. V (1907) 7068 p. 461. — Pycnidiis superficialibus, gregariis, globoso-depressis, fuscis, poro pertusis, 210-250 μ. diam., contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, medio 1-septatis, non v. vix constrictis, flavidulis, 10-15 × 3-4.

Hab. in caulibus siccis decorticatis Lycopersici esculenti, Kecskemét Hungariæ.

29. Diplodina atriseda Kabát et Bubák, Hedw. (1905) pag. 354. — 7069 Pycnidiis fere regulariter distributis, sæpe confertis confluentibusque, epidermide diu tectis eamque pustuliformem nigram efficientibus, globoso-depressis, 100-280 μ. diam., primum pallide brunneis, demum obscure brunneis v. nigris, poro minuto rotundato erumpentibus et cirrum roseolum protrudentibus, contextu parenchymatico obscure brunneo, firmo; sporulis ovoideis, ellipsoideis v. elongatis, 5-9 × 3-4, rectis raro curvulis, diu unilocularibus, maturis uniseptatis, ibique non constrictis, 2-4-guttulatis; sporophoris papilliformibus, hyalinis.

Hab. in ramis siccis Daturæ Stramonii prope Turnau, Bohemia (Kabat).

30. Diplodina Physalidis Hollós, Ann. Mus. Nat. Hung. IV (1906) 7070 p. 345. — Pycnidiis epidermide tectis, gregariis, fuscis, poro pertusis, ellipsoideis, 210-250 × 180-210, contextu parenchymatico; sporulis oblongo-ellipsoideis, medio 1-septatis, non v. vix constrictis, hyalinis, 9-11 × 3.

Hab. in caulibus siccis Physalidis Alkekengi, Kecskemét Hungariæ.

31. Diplodina chilensis Speg., Fungi Chilenses (1910) pag. 156. — 7071
-- Pycnidiis solitariis v. laxe gregariis, primo epidermide tectis, mox nudis, membranaceis, atris, glabris, sublenticularibus, 250-300 μ. diam., eximie papillato-ostiolatis; sporulis cylindraceis utrinque rotundatis, 14-24 × 4-5, ad medium 1-septatis, non constrictis, fumosis, loculis grosse 1- v. 2-guttulatis.

Hab in ramis siccis subputrescentibus Lobeliæ salicifoliæ, Cerro Alegre de Valparaiso Chile Amer. austr.

32. Diplodina Cynoglossi Hollós, Ann. Mus. Nat. Hungar. V (1907) 7072 p. 460. — Pycnidiis semiimersis, sparsis, lenticularibus, nigris, poro pertusis, 100-120 μ. diam., contextu parenchymatico; spo-

rulis oblongo-ellipsoideis, utrinque attenuatis et rotundatis, medio 1-septatis, non v. vix constrictis, ochraceis,  $10-12 \approx 2,5-3$ .

Hab. in caulibus siccis Cynoglossi officinalis pr. Kecskemét Hungaria.

33. Diplodina Rostrupii T. Vesterg., Ein bemerkensw. Pyknid. in 7073 Ark. för Bot. Stockh. V (1906) n. 11, tab. 1-2. — Pycnidiis sparsis v. subgregariis, innato-erumpentibus, inæqualiter globulosis, nigris, magnitudine variabilibus 150-500 μ. diam., obtusis, poro irregulari, subfimbriato, impresso dehiscentibus, intus 1-locularibus v. spurie et imperfecte inæqualiter plurilocularibus; contextu crassiusculo, heterogeneo-prosenchymatico-parenchymatico, intus sporophoris periphericis stipatis obsito; sporophoris iterato-ramosis, interdum subverticillatis, constricto-articulatis, sporulas duplo superantibus, hyalinis; sporulis oblongo-fusoideis, subrectis, utrinque obtusule acutatis, 1-septatis, non constrictis, circ. 10-16 × 2-3, hyalinis.

Hab. in capsulis siccis ex anno præterito Phyllodoces cæruleæ et Andromedæ hypnoidis in montibus altioribus Torne et Lule Lappark Lapponiæ. — A typo generis non parum deflectens et ad Excipulaceas forte nutans.

34. Diplodina Salviæ Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 346. 7074
 — Pycnidiis semiimmersis, gregariis, globosis, nigris, 240-280 μ. diam., apice ostiolo rotundato 30-35 μ. diam.; sporulis oblongoellipsoideis, medio 1-septatis, non v. vix constrictis, dilute ochraceis, 10-12 × 3,5-4.

 $\it Hab.$  in caulibus emortuis Salviæ officinalis, Nagy-Körös Hungariæ.

35. Diplodina Solidaginis Hollós, Ann. Mus. Nat. Hungar. V (1907) 7075 p. 50. — Pycnidiis epidermide tectis, dense gregariis, lenticularibus, fuscis, poro pertusis, 140-180 μ. diam.; contextu parenchymatico; sporulis oblongis, utrinque attenuatis, medio 1-septatis, non constrictis, flavidulis, 9-11 × 3-3,5.

Hab. in caulibus siccis Solidaginis Virgæ-aureæ, Kecskemét Hungariæ.

36. Diplodina Chrysanthemi Hollós, Ann. Mus. Nat. Hung. IV (1906) 7076 pag. 342. — Pycnidiis dense gregariis, erumpentibus, globoso-depressis, nigris, 300-400 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, initio hyalinis et continuis, dein flavidulis, medio 1-septatis, non v. vix constrictis, 7-11 ≈ 3-4.

Hab. in caulibus emortuis Chrysanthemi indici, Kecskemét Hungariæ.

37. Diplodina rugosa Sacc. in Ann. Mycol. X (1912) pag. 319. — 7077 Pycnidiis laze gregariis, subcutaneo-erumpentibus, demum, cortice secedente, superficialibus, initio hemisphæricis sed mox valde applanatis, umbilicatis et conspicue rugosis, nigris, crassiuscule membranaceis, usque ad 1 mm. latis, ostiolo impresso, rotundo 50-60 μ. diam., contextu minute celluloso, fuligineo, cellulis circ. 8 μ. diam., sæpius subradiantibus; sporulis teretiusculis, utrinque rotundatis, 1-septatis, non constrictis, 10-12 × 2, hyalinis; sporophoris brevissimis papilliformibus.

Hab. in caulibus emortuis, ut videtur, Compositarum majorum e. g. Eupatorii v. Senecionis, Selva, Treviso Italia (D. SACCARDO). — Licet matrix adhuc incerta, species vere distincta et non prætermittenda.

38. Diplodina Artemisiæ Bres. apud Jaap Ann. Mycol (1905) p. 400.  $^{7078}$  — Pycnidiis  $300 \times 210$ ; sporulis  $8.10 \times 2-2,5$ .

Hab. in caulibus vetustioribus Artemisiæ officinalis, pr. Warnemünde Mecklenburg Germaniæ.

39. Diplodina Inulæ Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 344. 7079
 — Pycnidiis epidermide tectis, globoso-depressis, nigris, poro pertusis, 210-250 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, utrinque attenuatis, medio 1-septatis, flavidulis, 10-12 × 3-3,5.

Hab. in caulibus siccis Inulæ hirtæ prope Kecskemét Hungariæ.

40. Diplodina Dahliæ Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 343. 7080 — Pycnidiis epidermide tectis, dense gregariis, globoso-depressis, nigris, 150-200  $\mu$ . diam., ostiolo rotundato 17-28  $\mu$ . diam.; sporulis oblongo-cylindraceis, utrinque rotundatis, medio 1-septatis, hyalinis, 10-12  $\approx$  2,5-3.

Hab. in caulibus siccis Dahliæ variabilis, Kecskemét Hungariæ.

41. Diplodina Sonchi P. Henn., Hedwigia XLV (1905) pag. 32. — 7081 Pycnidiis caulicolis, sub epidermide erumpentibus, hemisphæricis v. subglobosis, atris, medio pertusis, 100-120 μ. cr.; sporulis oblonge cylindraceis, rectis v. curvulis, 2-guttulatis dein medio 1-septatis, hyalinis, 8-13 × 3-3,5.

Hab. in caulibus siceis Sonchi asperi, Michailowskoe Rossiæ.

42. Diplodina Bryoniæ Hollós, Ann. Mus. Nat. Hungar. V (1907) 7082 p. 49. — Pycnidiis epidermide tectis, dense gregariis, lenticularibus, fuscis, poro pertusis, 140-220 μ. diam., contextu parenchymatico; sporulis initio elllipsoideis, continuis, dein cylindraceis, utrinque rotundatis, medio 1-septatis, non v. vix constrictis, pluriguttulatis, hyalinis, 8-11 × 3,5-4.

Hab. in caulibus siccis Bryoniæ dioicæ, Nagy-Körös Hungariæ.

43. Diplodina Asclepiadis Alm. et Cam., Rev. Agron. V (1907) p. 53, 7088 tab. I, fig. 7-8; Bol. Soc. Brot. XXV (1908-1909), Extr. p. 48.
— Pycnidiis sparsis v. gregariis, epidermide velatis, dein semi-erumpentibus, subglobosis, atris, 400-450 μ. diam.; sporulis subcylindraceis v. oblongis, rectis v. leniter curvulis, uniseptatis, non v. vix constrictis, enucleatis, utrinque rotundatis, subhyalinis, 10-15 × 2,5-3.

Hab. in caulibus Asclepiadis verticillatæ in horto bot. Coimbra Lusitaniæ (A. Moller).

44. Diplodina Periplocæ Hollós, Ann. Mus. Nat. Hungar. V (1907) 7084 p. 461. — Pycnidiis semiimmersis, gregariis, lenticularibus, brunneis, poro pertusis, 180-250 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis v. cylindraceis, utrinque rotundatis, medio 1-septatis, non vel vix constrictis, hyalinis, 8-10 × 3-3,5.

Hab. in sarmentis decorticatis Periplocæ græcæ, Nagy-Körös Hungariæ.

45. Diplodina Asperulæ Hollós, Ann. Mus. Nat. Hungar. V (1907) 7085 p. 460. — Pycnidiis superficialibus, sparsis, depresso-globosis, fuscis, poro pertusis, 90-120 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, medio 1-septatis, non constrictis, flavidulis, 8-10 × 3-4.

Hab. in caulibus siccis decorticatis Asperalæ cynanchicæ prope Kecskemét Hungariæ.

46. Diplodina Fraxini (Oud.) All. Krypt. Fl. Pilze VI, p. 687, fig. in 7086 p. 675. — Ita vocanda Ascochyta Fraxini Oud. — Syll. X, p. 297.

47. Diplodina Syringæ Hollós, Növényt. Közlemén. VI (1907) Extr. 7087 p. 5. — Pycnidiis epidermide tectis, dense gregariis, lenticularibus, fuscis, poro pertusis, 160-210 μ. diam., contextu parenchymatico; sporulis ellipsoideis, utrinque attenuatis, medio 1-septatis, non constrictis, flavidulis, 8-10 × 3,5-4.

Hab. in capsulis siccis Syringæ vulgaris, Kecskemét Hungariæ.

48. Diplodina Weigeliæ Hollós, Ann. Mus. Nat. Hungar. V (1907) 7088 pag. 462. — Pycnidiis epidermide velatis, sparsis, lenticularibus, fuscis, poro pertusis, 210-230 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, medio uniseptatis, non constrictis, flavidulis, 9-11 × 3-4.

Hab. in ramis emortuis Weigeliæ roseæ, Nagy-Körös Hungariæ.

49. Diplodina veronicicola Hollós, Ann. Mus. Nat. Hung. VI (1908) 7089 p. 531. — Pycnidiis sparsis, epidermide velatis, lenticularibus, nigris, poro pertusis, 160-200 μ. diam., contextu celluloso; sporulis cylindraceis, utrinque leniter attenuatis et rotundatis, biguttulatis, medio 1-septatis, non constrictis, dilute ochraceis, 10-12 × 2-3.

Hab. in caulibus siccis Veronicæ spicatæ prope Nagy-Körös Hungariæ. — A Dipl. Veronicæ Br. differt sporulis minoribus, hyalinis, etc.

50. Diplodina Salicorniæ Jaap, Verh. Bot. Ver. Prov. Brandb. (1907) 7090 p. 16; Weit. Beit. Pilzfl. nordfr. Ins., Schrf. Naturw. Ver. Schlesw.-Holst., Bd. XIV, Heft 1, p. 29 ot Abh. Bot. Ver. Prov. Brandb. IL (1907) p. 16. — Pyenidiis sparsis, globosis, 200–275 μ. diam., nigris, ostiolo conico-papilliformi, 20-40 μ. diam., contextu flavo-brunneo, parenchymatico; sporulis breviter cylindraceis, hyalinis, bicellularibus, fortiter constrictis, 6-9 × 4-4,5, maturis 15-18 × 6,5-7, flavidulis, sæpe 4-guttulatis.

Hab. in caulibus vetustis Salicorniæ herbaceæ in insula Sylt, Schleswig-Holstein.

51. Diplodina Obionis Jaap, Verh. Bot. Ver. Brandb. (1905) p. 96; 7091 Weit. Beit. Pilzfl. nordfries Ins., Schrf. Naturw. Ver. f. Schlesw.-Holst., Bd. XIV, Heft 1, pag. 29, Exsice. n. 98. — Pyenidiis sparsis, subcutaneo-erumpentibus et superficialibus, globosis, papilla hemisphærica præditis; 200-250 μ. diam, parenchymatico-contextis, dilute fuscis, circa ostiolum rotundum 25-30 μ. latum obscurioribus; sporulis oblongis, rectis, utrinque rotundatis, promore bicellularibus, 12 × 4,5 rarius 3-4-cellularibus 16 × 4, hyalinis, v. dilute flavidis, medio non v. vix constrictis, plerumque eguttulatis.

Hab. in ramulis vetustis Obionis portulacoidis in insula Amrum, Schleswig-Holstein.

52. Diplodia Corispermi Hollós, Növényt. Közlemén. VI (1907) Extr. 7092
 p. 4. – Pycnidiis epidermide tectis, dense gregariis globoso-depressis, fuscis, poro pertusis, 180-240 μ. diam., contextu paren-

chymatico; sporulis oblongo-ellipsoideis, medio 1-septatis, valde constrictis, flavidulis,  $14-18 \approx 6-8$ .

Hab. in caulibus siccis Corispermi nitidi prope Kecske-mét Hungariæ.

53. Diplodina humulicola Hollós, Ann. Mus Nat. Hungar. V (1907) 7093 p. 50. — Pycnidiis epidermide tectis, dense gregariis, lenticularibus, fuscis, poro pertusis, 140-210 μ. diam., contextu parenchymatico; sporulis oblongis, utrinque leniter attenuatis, medio 1-septatis, non constrictis, dilute ochraceis, S-10 × 3-5-4.

Hab. in caulibus siccis Humuli Lupuli prope Kecskemét Hungariæ. — A Diplodina Humuli Brun. diversa.

54. Diplodina juglandina Hollós, Ann. Mus. Nat. Hungar. VIII <sup>7094</sup> (1910) p. 4. — Pycnidiis superficialibus, gregariis, depresso-globosis, umbrinis, poro pertusis, 180-210 μ. diam., contextu celluloso; sporulis cylindraceis, utrinque leniter attenuatis et rotundatis, medio 1-septatis, non constrictis, dilute ochraceis, 10-12 × 2-3.

Hab. in ramis emortuis Juglandis regiæ prope Keeskemét Hungariæ.

55. Diplodina? salicicola (Johns.) Sacc. et Trav. Syll. XIX p. 617. 7095 — Macrodendrophoma salicicola Johns. in Sci. Proc. Roy. Dubl. Soc. N. S. X (1904) p. 160, t. 13, f. 5-6. — Pycnidiis hinc inde aggregatis (an stromatice?), subcutaneo-erumpentibus, intus albis, epapillatis, globoso-conoideis; sporulis ovato-oblongis, 1-septatis, vix constrictis, utrinque rotundatis, intus granulosis, hyalinis, 12 × 4,5; sporophoris ramosis.

Hab. in ramis corticatis Salicis triandre Hibernia Britannia, socia *Physalospora gregaria*, cuius, teste auctore, est pycnidium.

56. Diplodina parasitica (Hart.) Prill. Malad. pl. agric. II p. 292, 7096
f. 365. — Ita vocanda Septoria parasitica Hart. — Syll. XVIII
p. 392 — quæ = Ascochyta piniperda Lindau in Engl. Pflanzenfam. I, 1\*\* p. 367, t. XI f. A-E.

57. Diplodina Taxi Hollós, Ann. Mus. Nat. Hung. VIII (1910) p. 4. 7097

— Pycnidiis epidermide velatis, gregariis, brunneis, poro pertusis, 100-140 μ. diam., contextu celluloso; sporulis oblongo-ellipsoideis, medio 1-septatis, non v. vix constrictis; dulute ochraceis, 10-12 × 3-4.

Hab. in ramis siccis Taxi baccatæ prope Kecskemét Hungariæ.

58. Diplodina Junci Oud., Syll. XVIII p. 354. — Sec. Ferdinandsen 7098

et Winge, Botan. Tidsskrift, 29 Bd. (1909) p. 314, synonyma sunt huius speciei: *Stagonospora juncicola* Rostr. — Syll. XVIII p. 360, et *Diplodina juncicola* (Rostr.) Lind.

59. Diplodina arctica J. Lind, Vidensk. Selskab. Skrif., Math. Naturv. 7099 Kl. Christiania (1909) n. 9, Extr. p. 14, t. I, f. 13-16. — Pyenidiis sparsis, nigris, sphæricis, 150-200 μ. diam., tectis, epidermide minute pustulatim sublevantibus, vix erumpentibus, poro 35 μ. diam. pertusis; sporulis oblongis, utrinque rotundatis, 1-septatis, cylindricis v. constrictis, leniter curvulis, hyalinis, endoplasmate granuloso, 30-42 × 7-9.

Hab. in foliis dejectis Alopecuri alpini f. muticæ et Poæ cenisiæ, King William Land Americæ Arcticæ.

60. Diplodina Melicæ Diedicke, Aufzähl. Erfurts Micromyc. (1910) 7100 p. 80. — Maculis specialibus nullis; pycnidiis sparsis, ellipsoideis, in culmo subseriatis, initio epidermide velatis, dein ostiolo prominulo erumpentibus et sæpe pustulatim emergentibus, atro-fuligineis, contextu pseudoparenchymatico laxiusculo, vertice dehiscentibus, 300 × 225; sporulis majusculis, 25-40 × 5-7, cylindraceis, utrinque rotundatis, rectis curvulisve, 1-septatis, non constrictis, hyalinis intus granulosis.

Hab. in foliis culmisque Melicæ nutantis, Berka pr. Erfurt Germaniæ. — Imprimis sporulis ratione generis majusculis dignoscenda specie.

61. Diplodina Calamagrostidis (Brun.) Allesch., Deut. Krypt. Fl. Pilze 7101 VI, p. 681. — Vestergren in Hedw. XLII (1903) p. 107, t. III, f. 11-12. Ita vocanda est Ascochyta Calamagrostidis Brun. — Syll. X p. 308 — Teste Vest. l. c. pycnidia seriatim disposita minutissima, lenticularia 111-165 × 39-51, poro pertusa; sporulæ 10-13 × 3, utrinque guttulatæ et prope septum guttulis minutissimis 3-4 præditæ, sæpe inæquilateræ, hyalinæ.

Hab. quoque in culmis Avenæ elatioris, Arensburg ins. Oesel maris Baltici (Vestergren).

62. Diplodina Calvatiæ Hollós, Ann. Mus. Nat. Hungar. V (1907) p. 7102 281. — Pycnidiis sparsis v. gregariis, lenticularibus, fuscis, poro pertusis, 140-160 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, medio 1-septatis, non constrictis, hyalinis 15-20 × 4,5-5.

Hab. in endoperidio Calvatiæ candidæ prope Kecskemét Hungariæ.

63. Diplodina geastericola Hollós, Ann. Mus. Nat. Hungar. V (1907) 7108

p. 282. — Pyenidiis sparsis v. gregariis, lenticularibus, brunneis, poro pertusis, 140-200  $\mu$ . diam., contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, medio 1-septatis, non constrictis, hyalinis, 12-16  $\approx$  2-2,5.

Hab. in stratu externo v. interno exoperidii Geasteris hungarici prope Nagy-Körös Hungariæ.

64. Diplodina geasterina Hollós, Ann. Mus. Nat. Hungar. V (1917) 7104 p. 282. — Pycnidiis sparsis, subcutaneis, oblongo ellipsoideis, 250-350 × 140-210, fuscis, poro pertusis, contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, medio 1-septatis, non constrictis, hyalinis, 14-16 × 2,5-3.

Hab. in stratu externo exoporidii Geasteris ambigui prope Nagy-Körös Hungariæ.

65. Diplodina Geasteris Hollós, Ann. Mus. Nat. Hungar. IV (1906) 7105
p. 534. — Pycnidiis gregariis, depresso-globosis, fuscis, poro pertusis, 140-160 μ. diam., contextu parenchymatico; sporulis fuscideis, medio 1-septatis, non v. vix constrictis, hyalinis, 16-20 × 5-6.

Hab. in stratu interno exoperidii Geasteris nani, prope Monor Hungariæ.

66. Diplodina Mycenastri Hollós, Ann. Mus. Nat. Hung. IV (1906) 7106 p. 534. — Pycnidiis sparsis, globosis, fuscis, poro pertusis, 200-230 μ. diam., contextu parenchymatico; sporulis cylindraceis, rectis v. leviter curvulis, utrinque attenuatis, rotundatis, medio, 1-septatis, non constrictis, hyalinis, 16-20 × 4.

Hab. in endoperidio Mycenastri Corii, prope Kecskemét, Hungariæ.

VERMICULARIELLA Oud. (Jul. 1898). — Syll. XVI p. 941, XVIII p. 357 (*Didymochæta* Sacc. et Ell. Syll. XIV p. 953, paullo posterior: Sept. 1898)

1. Vermiculariella Drabæ Moesz, Gomb. Budap. I (1909) p. 20, t. 7107 II, f. 3 a-b (Bot. Közlem.) — Pycnidiis superficialibus, subglobosis, atris, 214-286 μ. altis, 214-350 μ. latis, ostiolo 13-14 μ. diam., pilis vestitis, contextu dense parenchymatico, atro-griseo; pilis fuligineis, divergentibus, plus minusve rigidis, simplicibus, multiseptatis, apicem versus pallidioribus, fere hyalinis, 70-200 × 6-7,5; sporulis multiformibus, anguste fusoideis, cylindraceis, acicularibus, subclavatis, 14-24 × 1,5-2,5, hyalinis, obsolete 1-septatis, ad septum non constrictis, 4-guttulatis.

Hab. in foliis caulibusque siccis Drabæ lasiocarpæ prope

Budapest Hungariæ.

2. Vermiculariella poiophila Speg., Myc. Argent. V, p. 365, cum 7108 icon. in An. Mus Nac. Buenos Aires XX (1910). - Pycnidiis numerosis laxe gregariis, subhemisphæricis, 120-180 µ. diam.. obsolete ostiolatis, setulis erectis non v. vix flexuosulis simplicibus continuis subopace fuligineis,  $30-150 \times 3-5$ , basi bulbilloso-incrassatis vestitis: sporulis fusoideis leniter arcuatis, 20-25 × 3-5, medio uniseptatis non constrinctis, hyalinis, levibus.

Hab, in culmis emortuis Chloridis cujusdam prope Formosa et in foliis aridis Calamagrostidis prope Lago San Martin Patagonia, Argentina Amer austr. - Ad hoc gen. pertinet etiam

Verm. Melicce (Fuck.) Sacc.

3. Vermiculariella opuntiicola (Speg.) Sacc. et Trott., Didymochaeta? 7109 opuntiicola Speg., Myc. Argent. V p. 369, in Annal. Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; pycnidiis solitariis v. laxe gregariis, erumpenti-subsuperficialibus, basi depressis, glabris sursum convexulis (250 µ. diam.) atris, coriacellis, in sieco collapsis udis subglobosis, setulis rigidulis, 100-150 × 5-8, 2-3-cellularibus fuligineis pellucidis laxe vestitis, ostiolo obsoleto, contextu dense parenchymatico atro-fuligineo subopaco; sporophoris subbacillaribus, simplicibus, 10-15 × 1.5-2, chlorinulis, monosporis; sporulis ellipsoideo-subfusoideis utrinque acutiuscule subrotundatis, 16-20 × 3-3,5, rectis v. leniter in equilateralibus, diblastis v. uniseptatis (non constrictis) loculis æquilongis, eguttulatis, chlorinis.

Hab. ad fructus siccos Opuntia diadematæ in aridis circa Catamarea Argentinæ Amer. austr. - A genere sporulis chlorinis nonnihil recedens. (Subgen. Didymochæta Sacc. em. Speg.)

CHÆTODIPLODINA Speg. Myc. Argentin. V, p. 368, in An. Mus. Nac. Buenos Aires XX (1910) (Etym. chæta seta et Diplodina). - Pycnidia superficialia subglobosa, ostiolata, subiculo fuligineo insidentia; sporulæ 1-septatæ hyalinæ.

1. Chætodiplodina graminicola Speg., l. c. p. 368. - Maeulis nullis; 7110 subiculo tenuissimo laxissimo ex hyphis repentibus ramulosis septulatis olivaceis, 200-500 × 3-5, hinc inde ramulos erectos simplices fuligineos pellucidos multiseptulatos rectiusculos, apice acutiusculos 100-250 × 5-8 emittentibus; pycnidiis hinc inde sparsis globoso-depressis 90-100 µ. diam., ostiolo minuto impresso perforatis, tenui-membranaceis, contextu grosse parenchymatico,

fumoso olivaceo; sporulis bacillaribus, sæpius basi obtusioribus, 30-45 × 4-6, rectis v. leniter inæquilateralibus, uniseptatis, ad septum non constrictis, loculis subæquilongis nubiloso-guttulatis, hyalinis.

Hab. ad folia viva Panici laxi in pratis Jbicuy Argentinæ Amer. austr. (E. Aguirre).

ROBILLARDA Sacc. — Syll. III p. 407, X p. 308, XI p. 525, XVI p. 935, XVIII p. 356.

1. Robillarda americana Speg., Myc. Argent. V, p. 367, in An. 7111 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis sed matrice tota sordide fuscescente; pycnidiis amphigenis, innatis, membranaceis, atris, lenticulari-depressis, 200-250 μ. diam., ostiolo vix papillato ornatis, contextu pergrosse parenchymatico, fuligineo; sporophoris bacillaribus 5-15 × 0,5, monosporis, hyalinis; sporulis cylindraceis, 20-28 × 3 basi muticis superne abrupte mucronatis, mucrone 5-10 × 0.5, recto, setulas 3 divuricatas, 15-20 × 0,5 fulcentibus, hyalinis, medio uniseptatis, rarius continuis v. utrinque parum sub apice 1-septatis.

Hab. ad folia dejecta putrescentia Gleditschiæ Triacanthi in silvula Santa Catalina prope Buenos Aires Amer. austr.

2. Robillarda Geasteris Hollós, Ann. Mus. Nat. Hung. V (1906) p. 7112 535. — Pycnidiis depresso-globosis, fuscis, poro pertusis, 180-210 μ. diam., contextu parenchymatico; sporulis fusoideis rectis v. leviter curvulis, deorsum rotundatis, apice acutis, setis 2-5, longis, hyalinis ornatis, medio 1-septatis, non constrictis, hyalinis 18-20 × 3-3,5 (sine setulis).

Hab. in stratu interno exoperidii Geasteris ambigui et G. nani prope Nagy-Körös et Monor, Hungariæ.

DARLUCA Cast. — Syll. III. p. 410, X p. 310, XIV p. 948, XVI p. 936, XVIII p. 357.

1. Darluca australis Speg. — Syll. X p. 310 — var. phyllostictoides 7113 Speg., Myc. Argent. V p. 366, in An. Mus. Nac. Buenos Aires XX (1910). — Habitu externo *Phyllostictam* optime simulans; pycnidiis 70-100  $\mu$ . diam.; sporulis 12-14  $\approx$  3.

Hab. ad folia languida Persicæ vulgaris in hortis La Plata Argentina Amer. austr.

- CYTODIPLOSPORA Oud. (1894) Syll. XI p. 428, XVI p. 941, XVIII p. 358 (= Placosphærella Pat. (1897) - Syll. XIV p. 948).
- 1. Cytodiplospora Robiniæ Bubák, Ann. Mycol. IV (1906) p. 116. 7114 Stromatibus verruciformi-erumpentibus, ramos late tegentibus, nigris, ex hypostromate crassiusculo nigro-brunneo ligno immerso orientibus, 0,4-0,8 mm. latis, loculis verticaliter dispositis, raro liseriatis; contextu intus flavido v. flavo-brunneo, extus obscure brunneo; sporulis ovoideis, ellipsoideis, elongatis v. biscoctiformibus, rectis raro curvulis, 6-10 × 3-4,5, 1-2-locularibus, apice rotundatis, uno latere, præcipue bilocularibus, angustioribus, hyalinis.

Hab. in ramis emortuis Robiniæ Pseudacaciæ prope Peruc Bohemia. — Socia ad est *Pleoamssaria Robinice* Bub.

2. Cytodiplospora disciformis Sacc. in Ann. Mycol. IX (1911) p. 252. 7115 - Stromatibus laxe gregariis, corticolis, innato-erumpentibus, disciformibus, utrinque applanatis, peridermio cinctis, 0,7-1 mm. diam., subcarbonaceis, extus nigris, intus subgriseis, disco parce obsoleteque papillulatis; loculis sæpius periphericis, globulosis v. depressis, 100-150 µ. diam.; sporulis fusoideis, lenissime curvis, utrinque acutiusculis, medio 1-septatis, non constrictis, 15-18 × 4, rarius usque ad 19 × 4,5, hyalinis, in basi sporifera fulvescente subsessilibus.

Hab. in ramis corticatis Æsculi Hippocastani in Gallia (P. Hariot). — A Cylodipl. Castanew Oud. recedit stromatibus disciformibus, sporulis subsessilibus etc.

3. Cytodiplospora Rhois Sacc. Notes Myc. VIII, Ann. Myc. v. IV 7116 (1906) p. 492, tab. X, fig. 6. — Stromatibus gregariis, corticolis, ambitu irregulariter circularibus. vix 1 mm. diam., cortice prominulo diu tectis, tandem poro irregulari erumpentibus, intus inæqualiter pluri-locularibus, nucleo farcto submelleo, excipulo imperfecto; sporulis fusoideis, utrinque acutulis, rectiusculis, 13-14 × 3 medio 1-septatis, non constrictis, hyalinis; sporophoris fasciculatis, bacillaribus, sursum tenuatis, 12-14 u. longis, 2-3 u. basi cr., hyalinis.

Hab. in ramis Rhois glabræ, Tamsel Marchiæ (Vogel) -Verisimiliter pycnidium Diaporthes stilbostomæ vel affinis.

4. Cytodiplospora silvatica Sacc. — Placosphærella silvatica Sacc. 7117 Ann. Mycol. X (1912) p. 148. — Stromatibus laxe gregariis, sæpius hypophyllis, innatis, atro-nitidulis, 1-2 mm. long., 0,5 mm. lat., oblongis v. breve lanceolatis, 1-paucilocularibus; loculis glo-

bulosis 140  $\mu$ . diam., immersis, poro 28-30  $\mu$ . lato pertusis; sporulis fusoideis, sæpe curvulis, utrinque acutatis, 14-15  $\approx$  2-2,5, diblasto-1-septatis, non constrictis, hyalinis; sporophoris palliformibus stipatis, chlorinis, 5-6  $\approx$  2,5.

Hab. ad folia Festucæ heterophyllæ subviva pr. Erfurt, Steiger, Germania (H. Diedicke). Species pusilla, probabiliter pycnidium Phyllachoræ silvaticæ.

## Sest. 5. Hyalophragmiæ

**STAGONOSPORA** Sacc. — Syll. III p. 445, X p. 330, XI p. 533, XIV p. 962, XVI p. 947, XVIII p. 358.

1. Stagonospora berberidina Sacc. in Ann. Mycol. X (1912) p. 312. — 7118 Maculis versiformibus arescendo sordide albidis, amphigenis, non discolori-marginatis; pycnidiis globoso-hemisphæricis, epidermide velatis, raris, nigricantibus, 140-160 μ. diam., ostiolo 30-40 μ. diam. pertusis, contextu dilute ochraceo-brunneo, circa ostiolum atro; sporulis fusoideis, utrinque subrotundatis, 3-septatis, non constrictis, 14-17 × 4, e hyalino viridulis, rarissime 3-4-septis tenuioribus interpositis, hinc 6-7-septatis.

Hab. in foliis Berberidis vulgaris in horto cultis, Lyndonville N. Y. Amer. bor. (FAIRMAN).

2. Stagonospora Yerbæ Speg., An. Mus. Nac. Buenos Aires v. 7119 XVII (1908) p. 136. — Pycnidiis cortice insidentibus, primo epidermide velatis serius sæpe denudatis, subconoideis, 120–150  $\mu$ . diam., papillato-ostiolatis, glabris, nigris, carbonaceis, contextu indistincto; sporulis elongato-fusoideis, constipatis, erectis, sursum attenuatis, truncatis, deorsum langius sensimque attenuato-subpedicellatis 100-120  $\approx$  8-9, initio continuis nubilosis, serius 9-11-guttulatis, 5-9-septatis, hyalinis.

 $\it Hab.$  ad ramos dejectos putrescentes Ilicis paraguariensis in silvis circa Campo das Cuias Misiones Argentina. — Var minor Speg. l. c. — A typo recedit pycnidiis minoribus 90-100  $\mu.$  diam. superne carbonaceis inferne membranaceis, contextu indistincto atro-subcyanescente; sporulis brevioribus, 70-85  $\approx$  7-9, validius fusoideis. — Ad ramulos emortuos Ilicis paraguariensis in dumetis circa San Pedro Misiones Argentina.

3. Stagonospora Koelreuteriæ Hollós, Ann. Mus. Nat. Hung. IV 7120 (1906) p. 354. — Pycnidiis epidermide tectis, depresso-globosis,

fuscis, poro pertusis, 210-250  $\mu$ . diam., contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, rectis v. curvulis, 3-septatis, non constrictis, hyalinis,  $16-24 \times 2,5-3,5$ .

Hab. in ramulis siccis Koelreuteriæ paniculatæ, Kecskemét Hungariæ.

4. Stagonospora theicola Petch, Ann. Roy. Bot. Gard. Peradeniya 7121 III, Pt. I (1906) p. 7. — Pycnidiis minutis, gregariis, innatis, nigris circ. 0,1 mm. diam.; sporulis triseptatis, viridi-hyalinis, oblongis, apicibus rotundatis, rectis v. leniter curvatis, 15-17 × 5.

Hab. in maculis griseis foliorum Theæ viridis, Ceylon. — Socia adsunt Læstadia Theæ Rac. et Colletotrichum Camelliæ Mass.

5. Stagonospora Opuntiæ Speg., Myc. Arg. V, p. 372, in An. Mus. 7122 Nac. Buenos Aires XX (1910). — Pycnidiis sparsis v. laxe gregariis, primo epidermide tectis dein erumpentibus v. denudatis, atris, glabris, subconoideis 250 p. diam., valide crasseque papillato-ostiolatis, carbonaceis, contextu indistincto; sporulis cylindraceis v. obsoletissime clavatulis, rectis v. vix curvulis, utrinque rotundatis, 16-20 \* 4-5, 1-3-septatis, non v. lenissime constrictulis, loculis hyalinis, sæpius grosse 1-guttulatis.

Hab. ad articulos emortuos et aridos Opuntiæ aurantiacæ in montanis Potrerillos prope Mendoza, Argentina Amer. austr.

6. Stagonospora Acænæ P. Henn., Deutsche Südpolar-Exped. Bd. 7128 VIII (1906) Extr. p. 14, t. II, f. 20. — Pyenidiis sparsis v. subgregariis, innato-erumpentibus, atris, membranaceis v. subcarbonaceis, subglobosis, apice obtuso subostiolatis, perforatis, c. 300 μ. diam.; sporulis oblongo-fusoideis v. subcylindraceis, utrinque obtusiusculis, 3-5 septatis vix constrictis, hyalinis, 18-20 × 5-6; sporophoris brevibus, subfiliformibus, hyalinis.

Hab. in ramis emortuis Acænæ ascendentis, in insulis Kerguelen (Werth). — Socia est Phoma Acænæ.

7. Stagonospora Photiniæ d'Alm. et da Cam., Bol. Soc. Brot. 7124 XXIV (1908-1909) Extr. p. 51. — Pyenidiis sparsis, epiphyllis, in macula cinerescente dispositis, primo diu tectis, demum erumpentibus, globulosis, poro minuto pertusis, 95-115 p. diam.; sporulis subellipsoideis, utrinque uniguttulatis rotundatisque, biseptatis, ad septa interdum obliterata, non v. vix constrictis, hyalinis, 8-10 × 2,5-3.

Hab. in foliis Photiniae sp., in horto botanico Coimbra Lusitaniae (A. Moller). — Socia Pestalozzia Guepini, Desm.

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8. Stagonospora Astragali Hollós, Ann. Mus. Nat. Hung. IV (1906) 7125 p. 353. — Pycnidiis epidermide tectis, globoso-depressis, nigris, 160-180 μ. diam.; sporulis cylindraceis, rectis, utrinque rotundatis, 3-7-septatis et guttulatis, non constrictis, hyalinis 16-20 × 4.

Hab. in petiolis siccis Astragali exscapi prope Kecskemét

Hungariæ.

9. Stagonospora Fumanæ Hollós, Ann. Mus. Nat. Hung. V (1907) 7126 p. 466. — Pycnidiis erumpentibus, gregariis, globulosis, fuscis, poro pertusis, 170 μ. diam., contextu parenchymatico; sporulis cylindraceis, utrinque leniter attenuatis et rotundatis, rectis v. curvulis, 3-septatis, non constrictis, hyalinis, 18-28 × 2-3.

Hab. in ramulis siccis Helianthemi Fumanæ prope Kecskemét Hungariæ.

10. Stagonospora heterospora Sacc., in Ann. Mycol. VIII (1910) p. 253. 7127 — Pycnidiis sub peridermio nidulantibus erumpentibusque, dense gregariis, globulosis, non papillatis, intus et extus nigricantibus, 200 μ. diam., hyphis brunneis, copiosis, intricatis, septatis, 4-5 μ. er. quasi subiculum formantibus insidentibus, contextu pycnidii pseudoparenchymatico fuligineo, crassiusculo; sporulis versiformibus, ellipsoideis oblongo-ellipsoideis clavulatis, pro more 3-septatis, medio non v. parce constrictis, rarius 1-2-septatis, 16-19 × 6,5-7 hyalinis; sporophoris bacillaribus, fasciculatis, hyalinis, 16-28 × 2-2,5.

Hab. in ramis corticatis languidis v. emortuis Ampelopsidis quinquefoliæ, Lyndonville N. Y. Amer. bor. (C. E. FAIRMAN).

11. Stagonospora Veronicæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 7128 p. 355, tab. VIII, fig. 15. — Pycnidiis epiphyllis, tectis, depresso-globosis, atro-brunneis, poro pertusis, c. 150 μ. diam., contextu parenchymatico; sporulis fusiformi-subclavatis, 3-septatis, ad septa leviter constrictis, dilute flavidulis, 20-30 × 3,5-4.

Hab. in foliis inferioribus emortuis Veronicæ prostratæ

prope Kecskemét Hungariæ.

12. Stagonospora Hyalidis Speg., Myc. Arg. V, p. 372, in An. Mus. 7129 Nac. Buenos Aires XX (1910). — Pycnidiis epidermide velatis, non v. vix erumpentibus, sparsis, ex hemisphærico subconoideis, 80-120 μ. diam., ostiolo vix papillato pertusis, tenui-membranaceis, contextu grosse parenchymatico olivaceo; sporophoris sæpius trichotomis, 15-20 × 1,5-2, hyalinis fasciculatis, ramulis monospermis; sporulis e cylindraceo subfusoideis, leviter curvulis, 3-septatis, ad septa non constrictis, 35-40 × 2,5-4.

Hab. ad ramulos aridos Hyalidis argenteæ in sabulosis prope Cordoba Argentina Amer. austr.

13. Stagonospora baccharidicola Hollós, Ann. Mus. Nat. Hungar. V 7130 (1907) p. 52. — Pycnidiis epidermide tectis, dense gregariis, lenticularibus, fuscis, poro pertusis, 210-250 μ. diam., contextu parenchymatico; sporulis fusiformibus, rectis, initio continuis, 2-3-guttulatis, dein 1- demum 3-septatis, hyalinis, 16-18 × 3,5-4.

Hab. in ramulis emortuis Baccharidis halimifoliæ, Kecskemét Hungariæ. — A. Stagonospora Baccharidis Ell. diversa.

14. Stagonospora Crepidis Hollós, Ann. Mus. Nat. Hung. VI (1908) 7131 p. 534. — Maculis orbicularibus, 2-4 mm. diam., sordide brunneis, expallentibus, atro-cinctis; pycnidiis epiphyllis, sparsis, epidermide tectis, lenticularibus, poro pertusis, 100-140 μ. diam., dilute brunneis, contextu parenchymatico; sporulis ovato-oblongis, rectis v. nonnunquam curvulis, 1- dein obscure 3-septatis, non v. ad medium vix constrictis, hyalinis, 4-guttulatis, 12-16 × 4.

Hab. in foliis vivis Crepidis biennis prope Nagy-Körös Hungariæ.

15. Stagonospora salicicola (Johns.) Sacc. et Trav. — Syll. XIX, 7132 p. 879 — Tetradia salicicola Johnson in Proc. Roy. Dubl. Soc. n. ser. X (1904) p. 157, t. 13, f. 3-4. — Pyenidiis subcutaneo-prominulis, depresse conoideis, intus pallidis, vix erumpentibus; sporulis tereti-oblongis, utrinque obtusulis, hyalinis, 3-septatis, non v. vix constrictis, 8,7 × 2,3; sporophoris sporulam subæquantibus, bacillaribus, hyalinis.

Hab. in ramis corticatis Salicis triandræ, Hibernia Britanniæ.

16. Stagonospora linearis Peck, Bull. Torr. Bot. Cl. XXXVI (1909) 7183 p. 338. — Pycnidiis pulvinatis v. hemisphæricis, 1-1,5 mm. latis, levibus v. rugulosis, erumpentibus, firmis, atris, intus albidis, basi flavescentibus, seriatim dispositis; sporulis rectis v. leviter curvis, utrinque obtusis, triseptatis, subcylindraceis, subclavatis, v. subfusiformibus, hyalinis, 40-60 × 5-6, sporophoribus gracilibus ramosis suffultis.

Hab. in ramis emortuis Cary æ sp. River Forest Illinois Amer. bor. (E. F. et S. A. HARPER).

17. Stagonospora Brunchorstii Sacc. Cfr. Brunchorst, Krankheit der 7184 Schwarzföhre, Bergen, 1887, Bergens Museum, n. 6, t. I et II. — Pycnidiis innato-erumpentibus, obtusis, subinde confluentibus, irregularibus, nigris, intus pallidis, farctis; sporulis fusiformibus,

utrinque obtusulis, curvulis, 3- plerumque 4-septatis, non constrictis, obsolete guttulatis, hyalinis, 33-40  $\times$  3, rarius usque ad 50  $\mu$ . long.; sporophoris dense stipatis, filiformibus, septatis sporulâ triplo longioribus.

Hab. in foliis, que inde dilabuntur, Pini austriace et P. montane in Norvegia. — St. Pini Grove satis affinis sed distinguenda.

- 18. Stagonospora Borbonicæ Da Cam. Syll. XVIII, pag. 359 (in 7185 Chamærope et Phænice!) Cll. d'Almeida et Da Cam. in Bol. Soc. Brot. XXV, p. 50 (extr.) mutaverunt nomen in Stag. Palmer, sed immerito nam fungillus in peraffini Latania borbonica facile reperiendus est.
- 19. Stagonospora Crini Bub. et Káb., Hedwigia XLII (1908) p. 361. 7136 Maculis amphigenis, sparsis, rotundatis v. elongatis, plerumque parum elevatis, purpureo-brunneis, immarginatis, sæpe confluentibus, demum pallescentibus; pycnidiis amphigenis, sparsis, sæpe confertis confluentibusque, inter nervos sæpe seriatis, globosis, compressis, 150-200 μ. d., e pallide brunneis brunneis, epidermide tectis, udis pustuliformibus, poro minuto rotundato papilliformi apertis, contextu tenui parenchymatico pallide brunneo; sporulis numerosis, maturis cylindraceis v. fusoideis, sæpe irregularibus, 16-26,5 ≈ 5-8,5, rectis v. raro incurvatis 3- (raro 5) transverse septatis, ibique plerumque constrictulis, utrinque angustato-rotundatis, hyalinis; sporulis immaturis 1-2-locularibus, minoribus; sporophoris crassis, conoideo-papilliformibus, flavidis.

Hab. in foliis emortuis putrescentibus Crini Powellii pr. Turnau Bohemia (KABAT).

20. Stagonospora Narcissi Hollós, Ann. Mus. Nat. Hung. V (1906) 7187 p. 354, tab. VIII, fig. 16. — Maculis irregularibus, magnis, brunneis; pycnidiis amphigenis, tectis, aggregatis, globoso-depressis, brunneis, poro pertusis, 140-180 μ. d., contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, 1- dein 3-septatis, ad septa constrictis, 2-4-pluriguttulatis, hyalinis, 20-28 × 6-8.

Hab. in foliis vivis Narcissi poëtici, Kecskemét Hungariæ.

- An diversa a Stagonospora Curtisii (Berk.) Sacc.
- 21. Stagonospora Eriophori Rostr., Rep. second. Norweg. arctic Ex-7138 ped. Fram (1906) pag. 9. Pycnidiis sparsis, globulosis, nigris; sporulis exacte cylindraceis, utrinque obtusis, septatis, guttulatis, hyalinis v. subflavidis, 45-52 × 3.

Hab. in foliis Eriophori polystachii, E. Havne Fjord Norvegia.

22. Stagonospora Typhæ von Höhnel, Stzb. k. Ak. d. Wiss. Wien, 7139 CXVIII, Abt. I (1909) pag. 404. — Pycnidiis globoso-depressis, nigris, immersis, infra hyphis 2-4 μ. cr. circumdatis; parietibus membranaceis, obscure brunneis, e cellulis polygoniis 8-12 μ. cr.; sporulis hyalinis 3-4-locularibus, ad septa plerumque constrictis, guttulatis, apice rotundatis, elongatis, 20-24 × 6-8.

Hab. in vaginis Typhæ angustifoliæ, Sonntagberg Austrie inf. (STRASSER).

- 23. Stagonospora Typhoidearum (Desm.) Sacc. Syll. III p. 451 7140 Sec. Bub. et Kab., Hedw. L (1909) p. 42, diagnosis plenior est sequens: pycnidis sparsis v. gregariis, interdum confluentibus, epidermide tectis dein rimose fissa tectis, contextu subcarbonaceo parenchymatico, atro-brunneo; sporulis copiosis, cylindraceis, 30-38 × 8, rectis curvulisve, utrinque rotundatis 1-3, raro 4-septatis, constrictis v. non, grosse 3-4-guttatis; sporophoris 5-10 × 3-4, sursum tenuatis. Locum adde ad caules Typhæ angustifoliæ pr. Münchengrätz Bohemiæ. Cl. de Höhnel, Frag. z. Myk. 1902 et 1909, contendit hanc speciem potius ad Ascochytam spectere quod ineptum videtur ob sporulas valde longas et 1-3 septatas.
- 24. Stagonospora elegans (Bk.) Sacc. et Trav. Syll. XIX p. 878. 7141 Hendersonia elegans Berk. in Ann. and Mag. Nat. Hist VI (1841) n. 208, t. XI, f. 9. — Pyenidiis in maculis minutis atro-brunneis singulatim innatis, nitidulis, prominulis; sporulis strato subgelatinoso insertis, late fusoideis, majusculis, apice obtuse tenuatis, deorsum in sporophorum brevissimum desinentibus, 6-8-septatis, hyalinis, loculis æqualibus, subinde vero turgidis, crassiuscule 1-guttulatis, tunica crassa.

Hab. in culmis Phragmitis communis in Britannia.

25. Stagonospora?cornuligera Speg., Myc. Arg. V. p. 371 in Anal. 7142 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis sed matrice tota sordide cinerescente; pycnidiis sparsis innato-erumpentibus, membranaceis, globulosis, 75-100 μ. diam., eximie ostiolatopertusis, contextu grosse parenchymatico fuligineo; sporulis subcylindraceis v. subclavatulis, rectis v. subcurvulis, superne obtusis, sæpius corniculis mucosis duobus breviusculis ornatis, postice subattenuato-acutatis, 32-38 × 4-6, pedicello persistente brevissimo

gracillimoque suffultis, sæpius 7-septatis ad septa non v. vix constrictis, chlorinis, corniculis et pedicellus  $5 \times 1$ , semper hyalinis.

Hab. ad culmos aridos Boutelouæ lophostachyæ in montanis Potrerillos prope Mendoza, Argentina America austr.

26. Stagonospora Alopecuri Rostr., Rep. second. Norweg. arctic 7148 Exped. Fram. (1906) p. 9. — Pyenidiis gregariis, prominentibus, perexiguis, globulosis; sporulis cylindraceo-bacillaribus, utrinque obtusis, 3-septatis, hyalinis v. pallide flaveolis, 25-32 × 5-6.

Hab. in foliis Alopecuri alpini, E. Fram's Haven Norvegiæ.

27. Stagonospora Arundinis (Lév.) Sacc. — Dothidea Arundinis Lév. 7144 Voyage dans la Russie merid. II, p. 109, t. V, f. 3 (1842). — Maculis flavo-fuscescentibus v. nullis; pycnidiis erumpentibus, amphigenis, globosis albo-farctis, prominulis, uni-biserialibus, stromate atro conjunctis, ostiolis obsoletis; sporulis septatis, hyalinis.

Hab. in foliis Phragmitis communis, Inkerman et Yatta Rossiæ merid. — Ob confluentiam pycnidiorum habitus subhysterioideus. An sit eadem ac Stag. Arundinis (Cooke) imperfecte descripta, non liquet. Cl. Léveillé sumit sporulas pro ascis.

28. Stagonospora vexata Sacc. — Syll. fung. III, p. 455 — var. 7145 Baldingeræ Sacc., Ann. Mycol. VII (1909) p. 434. — Sporulis paullo angustioribus, nempe 55-60 ≈ 5,5-6, plerumque tantum 7-8-septatis, hyalinis.

Hab. in foliis emortuis Baldingeræ arundinaceæ in Gallia (P. Harior).

29. Stagonospora Geasteris Hollós, Ann. Mus. Nat. Hung. IV 7146 (1906) p. 535. — Pycnidiis gregariis, depresso-globosis, fuscis, poro pertusis, 80-100 μ. diam., contextu parenchymatico; sporulis fusoideis, rectis v. curvulis, obscure 3-septatis, non constrictis, hyalinis, 20-22 × 2-2,5.

Hab. in stratu interno exoperidii Geasteris nani, prope Monor Hungariæ.

30. Stagonospora geasterina Hollós, Ann. Mus. Nat. Hungar. V 7147 (1907) p. 283. — Pycnidiis sparsis, subcutaneis, hemisphæricis, astomis, fuscis, 250 μ. diam., contextu parenchymatico; sporulis cylindraceis utrinque rotundatis, rectis v. leviter curvulis, 3-septatis, non constrictis, hyalinis, 28-34 × 2,5-3.

Hab. in stratu interno exoperidii Geasteris pseudolimbati prope Jász-Szent László Hungariæ.

 Stagonospora geastericola Hollós, Ann. Mus. Nat. Hungar. V 7148
 (1907) p. 282. — Pycnidiis sparsis v. gregariis, depresso-globo-Syll. Fung. XXII (V-1913) sis, fuscis, poro pertusis, 100-140  $\mu$ . diam., contextu parenchymatico; sporulis cylindraceis, utrinque leniter attenuatis, curvulis, vermicularioideis, 3-5-septatis, non constrictis hyalinis, 30-42  $\approx$  3-4.

Hab. in stratu interno exoperidii Geasteris minimi, in stratu interno et externo exoperidii Geasteris hungarici, Bakony-Szent-László et Nagy-Körös Hungariæ.

KELLERMANNIA Ell. et. Ev. — Syll. X p. 337, XIV p. 964, XVI p. 950, XVIII p. 362.

1. Kellermannia gongrogena (Temme) Sacc. et Trav. — Syll. XX p. 7149 1260. — Ita vocanda Pestalozzia gongrogena Temme. — Syll. X p. 489 – et ita describenda: – Pycnidiis subcutaneo-erumpentibus, subglobosis, nigris, non papillatis, exiguis, 40-100 μ. diam., contextu parenchymatico fuligineo; sporulis fusoideis, curvis, utrinque obtusulis, sursum leviter crassioribus, 24 × 4, triseptatis, non constrictis, hyalinis, intus granulosis, apice setula hyalina, sporula triplo breviore præditis; sporophoris filiformibus 7-8 μ. longis, hyalinis.

Hab. in ramis Salicis viminalis et S. undulatæ in quibus tumores (Weidenkropfen) efficit in Borussia et Saxonia.

2. Kellermannia cercosperma (Rostrup) J. Lind, Micromycetes from 7150 North-East Groenland, Kiobenhavn (1910) p. 157. — Ita vocanda Rhabdospora cercosperma (Rostr.) Sacc. Syll. X p. 391 (= Rhab. caudata (Karst.) Sacc., Syll. III p. 593).

## Sect. 6 Phæophragmiæ.

HENDERSONIA Berk. — Syll. III p. 418, X p. 317, XI p. 528, XIV p. 441, XVI p. 946, XVIII p. 368.

Hendersonia Clematidis Hollós, Ann. Mus. Nat. Hung. V (1907) 7151
 p. 465. — Pycnidiis sparsis, hemisphæricis, ostiolo minuto, perforato erumpentibus, fuscis, 280-350 μ. diam., contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, rectis v. curvulis, 3-septatis, non v. vix constrictis, dilute brunneis, 24-26 × 2-2,5.

Hab. in caulibus siccis Clematidis integrifoliæ prope Kecskemét Hungariæ.

Hendersonia Rubi (West.) Sacc., Syll. III p. 424, X p. 321, XI 7152
 p. 530 — var. Clematidis Strasser, Verh. k. k. zool.-bot. Ges.

Wien Bd. LX (1910) p. 320. — Sporulis brunneis, quadrilocularibus, loculo inferiore hyalino attenuato, cum sporophoris  $34 \times 5.7$ .

Hab. in ramulis siccis Clematidis Vitalbæ, Sonntagberg Austriæ.

- 3. Hendersonia Alyssi v. Höhn. Ann. Mycol. III (1905) p. 332. 7153 Pycnidiis gregariis usque ad 190 μ. latis, globosis, ostiolo non distincte papillato 10-12 μ. lato, supra brunneolis infra pallidioribus, subepidermicis; sporulis primum hyalinis dein pallide brunneolis, cylindraceis, utrinque truncatulis, rectis v. curvulis, quadrilocularibus 32-48 × 3-5 sed plerumque 40 × 3-3,5.
  - Hab. in caulibus siccis Alyssi corsici prope Bastia Corsicæ.

     In pycnidiis vetustioribus sporulæ Phomæ occurrunt.
- 4. Hendersonia sarmentorum West. Syll. III p. 420 var. 7154 Mahoniæ Hollós, Ann. Mus. Nat. Hungar. VII (1909) p. 55. Sporulis ellipsoideis, flavo-brunneis, 3-septatis, non v. vix constrictis, 10-12 × 4-5.

Hab. in ramulis siccis Mahoniæ Aquifolii prope Kecskemét Hungariæ. - Var. Deutziæ Hollós, Ann. Mus. Nat. Hungar. V (1907) p. 55. — A typo differt sporulis ellipsoideis, flavobrunneis, 3-septatis, non v. vix constrictis 10-13 × 4-5. — In ramulis siccis Deutziæ crenatæ, Kecskemét Hungariæ. - Var. Baccharidis Hollós, Növényt. Közlemen VI (1907) Extr. p. 8. — Sporulis ellipsoideis, flavo-brunneis, 3-septatis, ad septa non v. vix constrictis, 10-12 × 5-6. — In ramulis emortuis Baccharidis halimifoliæ, Kecskemét Hungariæ. - Var Coluteæ Hollós l. c. - Sporulis oblongo-ellipsoideis, v. cylindraceis, flavidulis, initio 1- dein 3-septatis, ad septa non v. vix constrictis 12-16 × 4-5. — In ramulis emortuis Coluteæ ar borescentis, Kecskemét Hungariæ. - Var. Pteleæ Hollós l. c. - Sporulis oblongo-ellipsoideis, flavidulis, 3-septatis, vix constrictis, 8-12 × 3-3,5. — In ramulis emortuis Pteleæ trifoliatæ, Nagy-Körös Hungariæ. - Var. Spiraeæ Hollós l. c. — Sporulis ellipsoideis, flavo-brunneis, 3-septatis, ad septa constrictis, 12-14 × 5,5. - Var lonicericola Hollós, Ann. Mus. Nat. Hung. V (1907) p. 466. — Sporulis ellipsoideis, flavo-brunneis, 3-septatis non v. constrictis, 12-14 × 5-6. — In sarmentis emortuis Loniceræ Caprifolii, Nagy-Körös Hungariæ. — Var Aceris Hollós l. c. VI (1908) p. 534. — Sporulis ellipsoideis, flavo-brunneis, 3-septatis, non constrictis 12-13 × 4-5. - In ramulis siccis Aceris Negundinis, Kecskemét Hungariæ. - Var. Cytisi Hollós, Ann. Mus. Nat. Hung. IV (1906) p.

263, tab. IX fig. 23. — Sporulis ellipsoideis, dilute flavis, apice rotundatis, deorsum acutatis, 3-septatis, ad septa non v. vix constrictis, 12-16 × 5-6. — In ramis siccis Cytisi Laburni, Kecskemét Hungariæ. - Var. Evonymi Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 363, tab. IX, fig. 24. — Sporulis ellipsoideis, flavobrunneis, 3-septatis, 10-13 × 5-6. — In ramis siccis Evonymi verrucosi prope Kecskemét Hungariæ. — Var. Genistæ Hollós Ann. Mus. Nat. Hung. IV (1906) p. 363. — Sporulis ellipsoideis, flavo-brunneis, 3-septatis, 11-12 × 5-6. — In ramis siccis Genistæ tinctoriæ prope Kecskemét Hungariæ. — Var. Viburni Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 363. — Sporulis ellipsoideis v. ovoideis, flavo-brunneis, 3-septatis, ad septa non v. vix constrictis, 12-13 × 5-6. — In ramis siccis Viburni Opuli, Kecskemét Hungariæ. - Var. Xanthoceratis Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 362. — Sporulis, oblongo, ellipsoideis, luteobrunneis, 3-septatis, non constrictis, 12-14 × 5-6. — In ramulis emortuis Xanthoceratis sorbifolii culti, Kecskemét Hungarie. - Var. Clematidis Trav. in Bull. n. 8 Flore Valdôtaine, p. 28 extr. (1912). — Sporulis 13-15 × 5-7. — In sarmentis Clematidis Vitalbæ Valpelline Valle d'Aosta, Ital. bor.

5. Hendersonia Astragali Karst. ap. Berl. Ic. fung. II p. 86, t. 119, 7155 f. A. — Pycnidiis gregariis globulosis non v. obsolete papillatis, rugulosis; sporulis cylindraceis, 3-septatis, ad septa non constrictis 15-22 × 5-6, utrinque rotundatis, fuligineis.

Hab. ad caules Astragali monspessulani et Astr. virgati in Gallia et Hungaria, socia Cucurbitaria Astragali que ut st. ascophorus est habenda.

6. Hendersonia triseptata Da Camara, Bol. Soc. Broteriana XXV 7156 (1910) Extr. p. 18. — Pyenidiis globulosis, atris, in macula plus minus orbiculata albidaque dispositis, initio epidermide velatis, dein erumpentibus, poro pertusis, 80-100 μ. diam.; sporulis cylindraceis v. oblongo-ellipsoideis, pallide melleo-fuligineis, rectis, utrinque rotundatis, triseptatis, 12-15 × 3.

Hab. in foliis Violæ albæ, in horto botanico Coimbra Lusitaniæ (A. MOLLER).

7. Hendersonia Mangiferæ Koord., Botan. Untersuch. Java (1907) p. 7157 210. — Pycnidiis gregariis v. sparsis, plano-orbiculatis v. pseudodisciformibus, primo epidermide tectis, dein sub-erumpentibus, vix papillatis, atris, 0,1-0-5 mm. diam., sporulis 3-septatis, cylindraceis, rectis v. curvulis, utrinque obtuse leniter attenuatis, 30-35 v.

7-8, non constrictis, hyalinis dein fuligineis; sporophoris 17- $20 \times 3-4$  hyalinis; paraphysibus destitutis.

Hab. in cortice Mangiferæ indicæ in Purworedjo prov. Kedu Java (Koorders).

8. Hendersonia Dianthi Bubak in Handel-Mazzetti, Bot. Reise Pont. 7158 Randgeb. in Ann. Naturhist. Hofmus. Wien XXIII (1909) p. 105. — Pycnidiis caulicolis, dispersis v. aggregatis, subepidermicis, globosis, 80-120 μ. diam., atris, contextu fusco-castaneo laxe parenchymatico, in medio poro rotundato apertis; sporulis fusoideo-cylindraceis, rectis v. curvulis 15-24 × 2-3, pallide olivaceo-brunneis, 3-septatis, ad septa non constrictis, utrinque attenuatis, rotundatis; cellulis extimis pallidioribus.

Hab. ad caules emortuos Dianthi liburnici in Montibus Ponticis Anatoliæ. — Hend. stagonosporioidi affinis sed differt pycnidis minoribus, sporophoris angustioribus etc.

9. Hendersonia Alsines Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 7159 359, cum icon. — Pycnidiis epidermide tectis, sparsis, globoso-hemisphæricis, nigris, apice ostiolo conico papillato perforatis, 120-240 μ. diam., contextu parenchymatico; sporulis cylindraceis, rectis v. curvulis, utrinque rotundatis, flavo-brunneis, 7-13-plerunque 7-vel 9-septatis, ad septa non v. leniter constrictis, 28-60 × 5-6.

Hab. in foliis emortuis Alsines vernæ prope Kecskemét Hungariæ. — Hend. tenella Schr. sporulis 3-septatis, 20- 25  $\times$  3-4 distinguitur.

10. Hendersonia Opuntiæ H. Zimmermann Verhandl. naturf. Verein, 7160 Brünn, XLVII 1908 (1909) p. 42, t. I, f. 11 (extr.). — Pycnidiis in maculis fuscis subprominulis nigris, 150 μ. diam., contextu parenchymatico, cum ostiolo 12 μ. lato; sporulis cylindraceis, badiis 18-35 × 4-6, 6-9-septatis, cirris fuscis.

Hab. in caulibus Opunitiæ comanchicæ in horto Eisgrubensi Austraæ.

11. Hendersonia Mate Speg., Anal. Mus. Nac. Buenos Aires XVII 7161 (1908) p. 136. — Pycnidiis per epidermidem pustulatim disrupta subexertulis, nigris, glabris, lenticulari-conoideis, 150 μ. diam., ostiolo non viso, contextu obsolete parenchymatico olivaceo subcarnosulo donatis (an completis?); sporophoris conoideis 10-15 × 5, hyalinis, monosporis; sporulis ellipsoideis utrinque obtusiusculis 10-12 × 5-6, 2-3-4-blastis, ad pseudosepta non constrictis, fuligineis.

Hab. ad ramulos aridos adhuc pendulos Ilicis paraguariensis secus rivulum «Matto Queimado» Misiones Reip. Argentina.

12. Hendersonia Verbæ Speg., Anal. Mus. Nac. Buenos Aires t. 7162 XVII (1908) pag. 136. — Substrato denudato albescenti-cinereo; pycnidiis hinc inde laxe gregariis, basi matrici insculptis subhemisphæricis, 100 μ. diam., perforato-ostiolatis, atris, glabris submembranaceis, contextu minute denseque parenchymatico-olivaceo; sporulis fusoideis, rectis v. lenissime inæquilateralibus, apice supero acutiusculis, apice infero subtruncatis, 28-30 × 4-5, 5-7-septatis, ad septa non v. vix constrictis, olivaceis.

Hab. ad ramulos emortuos aridos Ilicis paraguariensis in dumetis circa San Pedro Misiones, Argentina.

13. Hendersonia Trevoæ (Speg.) Sacc. et Trott. — Hendersonia Trevoæ Speg., Fungi Chilenses (1910) p. 163. — Pycnidiis ligno denudato insidentibus, plus minusve confertiusculis, superficialibus, hemisphærico-depressis, 150-180 μ. diam., atris, glabris, coriaceis, obsolete ostiolatis; sporulis ellipsoideis, cylindraceis v. subclavulatis non v. leniter inæquilateralibus, 3-septato-constrictis, 8·12 × 5-6, fuligineis.

Hab. in ramulis siccis subputrescentibus Trevoæ trinervis in collibus San Bernardo prope Santiago Chile, Amer. austr.

14. Hendersonia Ætoxici Speg., Fungi Chilenses (1910) p. 163, cum 7164 icon. — Maculis epiphyllis orbicularibus, determinatis, 5-10 mm. diam., cinereis, areola angustissima purpurascenti cinctis; pycnidis hypodermicis lenticularibus, 100-120 μ. diam.; coriacellis, atris, sparsis; sporulis ellipsoideo-subnavicularibus, transverse biseptatis, 18-20 × 8-9, loculo centrali ceteris leniter crassiore obscurioreque.

Hab. in follis vivis Ætoxici punctati in silvaticis Cerro Caracol de Concepcion Chile, Amer. austr.

15. Hendersonia Buxi Sacc. et Cub. ap. Sacc. in Ann. Mycol X p. 319, 7165 — Maculis candidis (propriis?) interdum dimidium folium occupantibus, aridis, amphigenis, non discolori-marginatis; pyenidiis epiphyllis, sparsis, globoso-depressis, initio epidermide velatis, obsolete ostiolatis, nigricantibus, 180-200 µ. diam.; sporulis ellipsoideis, utrinque rotundatis, diu hyalinis et subcontinuis, dein distincte 3-septatis, non constrictis, 9-11 ≥ 4-5, brunneis, brevissime obsolete pedicellatis v. subsessilibus.

Hab. in foliis languidis Buxi sempervirentis, Coneglia-

no, Aprili 1885 (G. Cuboni). — Est species ex subgen. *Phyllohendersonia* Tassi.

16. Hendersonia mexicana Saccardo, Microm. Amer. novi in Journ. of 7166 Myc. v. XII (1906) p. 51. — Maculis minutis, epiphyllis, subinde paullum elevatis, nigricantibus, non v. vix discolori-marginatis, circ. 1 mm. diam.; pycnidiis subhemisphæricis, epidermide velatis sed prominulis, 140-160 μ. diam., subastomis; contextu minute celluloso, fuligineo; sporulis tereti-oblongis, utrinque obtuse rotundatis, 3-septatis, ad septa constrictis, 12-14 × 5,5-7 fuligineis; sporophoris obsoletis.

Hab. in foliis languidis Perseæ gratissimæ vulgo Aguacate, Tenancingo, Mexico (Bonansea). — Ad subgen. Phyllohendersoniam spectat. Septa manifestissima.

17. Hendersonia Oenotheræ Hollós, Ann. Mus. Nat. Hung. IV (1906) <sup>7167</sup> p. 361, tab. IX, fig. 22. — Pycnidiis epidermide tectis, sparsis, ellipsoideis, nigris, poro pertusis, 310 × 210; sporulis flavo-brunneis, ellipsoideis, 3-septatis, 16-20 × 6-7, sporophoris hyalinis, 20-26 μ. longis suffultis.

Hab. in caulibus siccis Oenotheræ biennis prope Nagy-Körös Hungariæ.

18. Hendersonia Polygalæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 7168 p. 362. — Pycnidiis epidermide tectis, sparsis, depresso-globosis, nigris, poro pertusis, 240-280 μ. diam., contextu parenchymatico; sporulis cylindraceis, rectis v. curvulis, utrinque rotundatis, initio hyalinis, dein flavidulis, continuis, demum flavo brunneis, 9-11-septatis, ad septa non v. vix constrictis, rarius guttulatis 40-54 × 6.

Hab. in caulibus siccis Polygala comosæ prope Izsák Hungariæ.

19. Hendersonia Opizii (Peyl) Sacc. et Trav. — Syll. XIX p. 858 — 7169 Sporocadus Opizii Peyl, in Lotos VII (1857) p. 27, f. 4. — Pycnidiis cortice nidulantibus, perexiguis, vix conspicuis, nigris, hemisphæricis v. depresso-conoideis, apice poro pertusis; sporulis elliptico-oblongis, 2-3-septatis, nigricantibus, separatim pellucidis.

Hab. in ramis corticatis emortuis Camelliæ japonicæ cultæ Kacin Bohemiæ (Peyl).

20. Hendersonia Eriobotryæ Speg., Myc. Argent. V p. 373, in Anal. 7170 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis orbicularibus, 3-7 mm. diam., arescentibus, cinerescentibus, areola angustissima rubescente cinctis; pycnidiis innatis, epiphyllis, spar-

sis, lenticularibus, 80-100  $\mu$ . diam., atris, tenui-membranaceis, contextu parenchymatico olivaceo, ostiolo rotundo impresso perforatis; sporulis e cylindraceo subfusoideis, utrinque attenuato-subacutiusculis, 30-35  $\approx$  5-6 sæpius 7-septatis, lenissime constrictulis, sæpius leniter inæquilateralibus, chlorinis.

Hab. ad folia languida Eriobotryæ japonicæ in hortis Lezana Buenos Aires Argentina Amer. austr.

21. Hendersonia putaminum Hollós, Növényt. Közlemén, VI (1907) 7171 Extr. p. 8. — Pycnidiis gregariis, superficialibus, globoso-depressis, nigris, apice ostiolo minuto, 240–280 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, plerumque uno apice interdum utrinque attenuatis, fuscis, 3-septatis, non v. vix constrictis, 10-13 × 5-6.

Hab. in putamine putrescente Armeniacæ vulgaris, Kecskemét Hungariæ.

22. Hendersonia septem-septata Vestergr. — Syll. XIV p. 955 — 7172 fm. foliicola Potebnia, Myc. St. in Ann. Myc. v. V (1907) p. 17, fig. 33 et Trav. Soc. Nat. Univ. Kharcov XXXXIII (1907). — Pycnidiis obscure brunneis 170 μ. cr., amphigenis; sporulis brunneis 5-7-septatis, non v. parum constrictis, rectis v. curvulis, 26-30 × 5-7, loculis terminalibus leviter attenuatis, longioribus et pallidioribus.

Hab. in foliis vivis Caraganæ arborescentis prope Kursk Rossiæ. Occurrit in maculis Phyllostictæ Spæthianæ.

23. Hendersonia genisticola Hollós, Ann. Mus. Nat. Hung. IV (1906) 7173 p. 361 — Pycnidiis epidermide tectis, depresso-globosis, nigris, poro pertusis, 240-280 μ. diam., contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, initio hyalinis, dein flavidulis, continuis, demum flavo-brunneis, 7-8-septatis, rarius guttulatis, 28-44 × 6.

Hab. in ramis siccis Genistæ tinctoriæ prope Kecskemét Hungariæ.

24. Hendersonia Sophoræ (Peyl) Sacc. et Trav. — Syll. XIX p. 859. 7174 — Sporocadus Sophoræ Peyl, Lortos VII (1857) p. 28, f. 5. — Pycnidiis subglobosis, basi applanatis, subcutaneis, prominentibus, dense gregariis, vertice dehiscentibus et epidermidem stellatim findentibus, nucleo atro; sporulis ellipsoideis, utrinque rotundatis, 3-4-septatis, non constrictis, fuligineis, demum e poro exeuntibus.

Hab. in ramis Sophoræ japonicæ frigore necatis, Kacin Bohemiæ (Peyl).

25. Hendersonia Erythrinæ (Alm. et Da Cam.,) Sacc. et Trott. — 7175 Hendersonulina Erythrinæ Alm. et Da Cam., Soc. Brot. XXV (1908-1909) Extr. p. 51. — Pycnidiis punctiformibus, sparsis, innatis, vertice subprominulis, subglobosis, interdum depressis, 150-200 μ. diam.; sporulis numerosissimis, ovoideo-oblongis, plerumque ellipsoideis, utrinque rotundatis v. plus minusve attenuatis, rectis, initio 1- dein 2- demumque 3-septatis, deorsum septo rare oblique disposito præditis, non constrictis, fuscis, 10-12 × 5-6.

Hab. in caulibus Erythrinæ Cristæ-galli, in horto bot.

Coimbra Lusitiana (A. Moller).

26. Hendersonia Hydrangeæ Fairm. Ann. Mycol VII (1910) p. 325. — 7176 Pycnidiis minutis, globosis, vix papillatis, in rimis corticis nidulantibus, demum superficialibus, gregariis, atris, 0,5 mm. latis; sporulis oblongis v. obovatis, utrinque rotundatis, primo continuis, hyalinis, continuis v. uniseptatis, dein brunneis et triseptatis, non constrictis, 10-13 × 4-5.

Hab. in ramis emortuis Hydrangeæ paniculatæ grandifloræ, Lyndonville N. Y. Amer. bor.

27. Hendersonia Bignoniacearum v. Höhnel, Ergebn. Bot. Exp. Süd-7177 bras. 1901 Denkschr. k. Akad. d- Wiss. Wien. Bd. LXXXIII (1907) Extr. p. 35. — Pycnidiis subepidermicis, brunneis, depresse globosis, 200 μ. circ. cr., sparsis, ostiolo depresso 12 μ. circ. lato rotundato; sporulis numerosis, obscure brunneis, plerumque 8-locularibus, cylindraceis, rectis v. curvulis, utrinque rotundato-angustatis, 26-30 ≈ 5-6.

Hab. in cirris Bignoniaceæ cujusdam, Parnahyba Sao Paulo Brasiliæ.

28. Hendersonia pulchella Sacc. — Syll. III p. 430 — Var. teco-7178 micola Hollós, Növényt. Közlemén. VI (1907) Extr. p. 9. — Pycnidiis epidermide tectis, gregariis, nigris, depressis, ovatis, 260-280 × 210-245, contextu parenchymatico; sporulis fusoideis, rectis v. curvulis, utrinque attenuatis, flavo-brunneis, 7-10-septatis, guttulatis v. eguttulatis, 36-46 × 5-6.

Hab. in ramis siccis Tecomæ radicantis, Kecskemét Hungariæ. — Var. Epipactidis Hollós, Ann. Mus. Nat. Hung. V (1907) p. 465. — Pycnidiis sparsis, tectis, globulosis, atris, poro pertusis, 210-280 μ. diam., contextu parenchymatico; sporulis elongato-fusoideis, rectis v. curvulis, 11-septatis, non constrictis, guttulatis, flavo-brunneis, 42-54 × 6-7. — In caulibus E pipactidis rubiginosæ, Kecskemét in Hungaria. — Var. Pimpinellæ Hol-

lós, Ann. Mus. Nat. Hung. VI (1908) p. 534. — Pycnidiis sparsis, innato-prominulis, globulosis, breviter papillatis, atris, 250 μ. diam., contextu celluloso; sporulis elongato-fusoideis, rectis v. curvulis, 9-11-septatis, non constrictis, luteolis, dein obscurioribus, 40-60 \* 4-5. — In caulibus siccis Pimpinellæ Saxifragæ prope Kecskemét Hungariæ. - Var. Prunellæ Hollós, Ann. Mus. Nat. Hung. VII (1909) p. 56. - Pycnidiis sparsis, epidermide velatis, depresso-globosis, breviter papillatis, atris, 240-280 μ. diam., contextu celluloso; sporulis elongato fusoideis, rectis v. curvulis. 9-11-septatis, constrictis, flavo-brunneis, guttulatis, 44-50 × 5-6. - In caulibus siccis Prunellæ albæ prope Kecskemét Hung. - Var. Scorzoneræ Hollós l. c. - Pycnidiis sparsis, globulosis, breviter papillatis, atris, 180-250-300 p. diam., contextu celluloso: sporulis elongato-fusoideis, rectis v. curvulis, initio continuis et luteolis, demum 9-11-septatis, non constrictis, guttulatis, flavo-brunneis, 28-36 × 4-5. — In caulibus siccis Scorzoner:e purpureæ, prope Nagy-Körös Hungariæ. - Var. Lini Hollós, Ann. Mus. Nat. Hung. V (1907) p. 465. — Pycnidiis, 200-250 y., sporulis 7-septatis, non v. vix constrictis, flavidulis demum flavo-brunneis, 32-40 × 4-6. — In caulibus siccis Lini glabrescentis, prope Nagy-Körös Hungariæ. - Var. Sedi Hollós, Ann. Mus. Nat. Hung. V (1907) p. 466. - Pycnidiis superficialibus, de presso-globosis, 250-300 µ; sporulis 7-11-septatis, non constrictis, guttulatis, flavo-brunneis, 40-54 × 5,5-6. — In caulibus siccis decorticatis Sedi maximi, prope Kecskemét Hungariæ.

29. Hendersonia Campanulæ Hollós, Ann. Mus. Nat. Hung. IV 7179 (1906) p. 360. — Pycnidiis epidermide tectis, sparsis, depressoglobosis, nigris, 350-420 μ. diam., ostiolo conico 140 × 170, erumpentibus, contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, initio hyalinis et continuis, dein medio 1-septatis, demum flavo-brunneis, 3-septatis, 10-16 × 5-6.

Hab. in caulibus siccis Campanulæ glomeratæ, prope Kecskemét Hungariæ.

30. Hendersonia diplodioides Ell. et Ev. — Syll. III p. 422. — Var. 7180 divergens Peck, N. Y. St. Mus. Bull. 131 (1909) p. 38. — Differt sporulis maximis, irregularibus, rectis v. curvulis, oblongis, subpiriformibus v. ellipsoideis, 1-5-septatis, plerumque 3-septatis, 30-40 \* 12-24.

Hab. in ramis emortuis Sambuci, Red Butte Camyon, Utah, Amer. bor. (A. O. GARRETT).

31. Hendersonia diplodiopsis P. Henn., Verh. Bot. Ver. Prov. Brandb. 7181 XLVII (1905) p. XII. — Pycnidiis subcutaneis epidermide bullata rimosa tectis, sparsis, subhemisphæricis, atris, c. 150-170 μ. diam.; sporophoris hyalinis, brevibus; sporulis oblongis, cylindraceis, utrinque obtusis, rectis v. subcurvulis, primo, continuis hyalinis, dein castaneis v. fuscis, medio uniseptatis, deinde sæpe 3-septatis, 8-11 × 3,5-4,5.

Hab. in ramulis siccis Loniceræ Hylostei, Hellmhüle Germaniæ. — Ab Hendersonia pulchella et Hendersonia Periclymeni omnino diversa.

32. Hendersonia serbica Bubák et Ranojevic, Ann. Mycol. VIII 7182 (1910) p. 388. — Pycnidiis globosis, subapplanatis v. parum conoideis, 300-400 μ. diam., primum subepidermicis, dein nudis, nigris, subnitidis, contextu pseudoparenchymatico brunneo, basi hyphis brunneis numerosis prædito; sporulis ex ellipsoideo cylindraceis, 11-14 (raro 19) ≈ 3,5-6, primum pallidis et bicellularibus, dein brunneo-olivaceis et quadricellularibus, apice rotundatis, ad septa non v. parum constrictis; sporophoris brevibus, ampullaceis, hyalinis.

Hab. in ramis siccis Achilleæ clypeolatæ prope Pirot Serbia.

33. Hendersonia? Proustiæ Speg., Myc. Argent. V p. 374, in Anal. 7183 Mus. Nac. Buenos Aires XX (1910). — Pycnidiis ligno denudato insidentibus, dense gregariis, subemisphæricis, 150-200 μ. diam., subcarbonaceis, minute papillato-ostiolatis, hyphis septulalis nonnullis radiantibus repentibusque parce ramosis olivaceis adspersis; sporulis subellipsoideo-cylindraceis, 26-28 × 9-10, 3-septatis, ad septa non v. lenissime constrictis, loculis æquilongis eguttulatis fuligineis.

Hab. ad ramos dejectos putrescentesque Proustiæ ilicifoliæ in montanis Cacheuta prope Mendoza Argentina Amer. austr.

34. Hendersonia Asterisci (Speg.) Sacc. et. Trott. — Hendersonulina 7184 Asterisci Speg., Fungi Chilenses (1910) p. 161. — Pycnidiis epidermide tectis subseriatis subglobosis, 75-120 μ. diam., membranaceis, atris, ostiolo minuto perforatis; sporulis subclavulatis sæpius 3-septatis (raro 1-2) ad septum medium tantum leniter constrictulis, 12-14 ≈ 5-5,5, pallide olivaceis.

Hab. in caulibus emortuis siccis Asterisci chilensis, Cerro Caracol de Concepción Chile Amer. austr.

35. Hendersonia Santolinæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 7185 p. 362, tab. IX, fig. 31. — Pycnidiis epidermide tectis, gregariis, globulosis, brunneis, 240-280  $\mu$ . diam., ostiolo rotundato 30-35  $\mu$ . diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, 3-septatis, ochraceis, 9-12  $\approx$  3,5-4, aliis immixtis 1-2-septatis.

Hab. in caulibus siccis Santolinæ Chamæcyparissi, Kecske-

mét Hungariæ.

36. Hendersonia Oleæ (Speg.) Sacc. et Trott. — Hendersonulina Oleæ 7186 Speg., Fungi Chilenses (1910) p. 162 cum icon. — Pycnidiis laxissime gregariis, cortice innatis, epidermidem perforantibus, globosis, 250 μ. diam., coriacellis, eximie ostiolato-papillatis; sporulis ellipsoideis v. subobovatis, 12-16 × 5-6, sæpius 3-septato-constrictulis, fuligineis.

Hab. parasitice in ramulis siccis Oleæ europææ, in hortis de Santiago Chile Amer. austr. — Socia Calospora oleicola Speg. cuius formam pycnidicam verisimiliter sistit.

37. Hendersonia pachytheca Bubák, Bull. Herb. Boiss., 2 sér., VI 7187 (1906) p. 482. — Pycnidiis sparsis, usque in ligno immersis, epidermide tectis, papilla brevi prominentibus, globosis, sed usque ad 20 μ. depressis, 100-150 μ. latis, parietibus crassis præditis, nigris; contextu infra pallide castaneo-brunneo v. flavo-brunneo, supra subnigro; sporulis elongato-ellipsoideis v. subcylindraceis, 9-13 × 4-5, utrinque rotundatis, 3-septatis, leniter constrictis, castaneo-brunneis; sporophoris phialiformibus v. conoideis, basi fortiter inflatis, 6-11 × 2-2,5, hyalinis.

 $\it Hab.$  in ramulis siccis Osyridis albæ prope Ulicinj Montenegro.

38. Hendersonia Periplocæ Hollós, Ann. Mus. Nat. Hung. V (1907) 7188 p. 466. — Pycnidiis semi-immersis, gregariis, depresso globosis, fuscis, poro pertusis, 240-280 μ. diam., contextu parenchymatico; sporulis fusoideis, dein 1- demum 3-septatis, non vel vix constrictis, dilute brunneis, 16-20 ≈ 3.5-4.

Hab. in sarmentis decorticatis Periplocæ græcæ, Nagy-Körös Hungariæ.

39. Hendersonia salicella Kalchbr., Math. Termész. Közlemen. V 7189 (1867) p. 272, tab. V, fig. 6. — Pycnidiis gregariis; sporulis oblongo-fusoideis, utrinque obtusulis, 3-septatis, demum constrictis, fuscis, cellula ultima ut plurimum hyalina; sporophoris fasciculatis, filiformibus, sporulam subæquantibus.

Hab. in ramis salicinis in Hungaria. — Teste auctore esset

st. pycnidicus Diaporthe (Chor.) salicellæ; quod dissonum videtur.

40. Hendersonia Sabaleos Ces. — Syll. III, p. 434 — var. Arecæ 7190 Teresa Mariani in Atti Soc. It. Sc. Nat. L (1911) p. 168. — A typo differt sporulis angustioribus, 11-13 × 2,5-3 et matrice valde diversa.

Hab. in foliis Arecæ sapidæ, in horto botanico conimbricensi Lusitaniæ socia Coniothyrii sp. (A. Moller).

41. Hendersonia acicola Münch et v. Tub. in Nat. Zeitschr. f. Land. 7191 u. Forstw. VIII (1910) p. 44. — Pycnidiis in acubus violaceovel brunneo-tinctis insidentibus, c. 140 μ. diam.; sporulis plerumque 3-cellularibus, raro 2-vel 4-cellularibus, brunneis, 11-15 × 4-5; sporophoris nullis.

Hab. in acubus Pini silvestris pluribus locis Germaniæ.

42. Hendersonia cytisporoides (Peyl) Sacc. et Trav. — Syll. XX 7192 p. 1249. — Sporocadus cytisporoideis Peyl, Beschreib einig neuer Pilze in Lotos VIII (1858) p. 30, t. I, f. 16. — Pycnidiis subcutaneis, conoideis, subsparsis, prominulis, epiphyllis, apice pertusis, erumpentibus; sporulis oblongis, apice rotundatis, basi acutis, 3-septatis, non constrictis, brunneis, diaphanis, in cirrum filiformem nigrum, longum eructatis, inter se diu coherentibus.

Hab. in foliis emortuis Cupressi sempervirentis in frigidario cultæ in Bohemia.

43. Hendersonia Thujæ Diedicke, Ann. Mycol. IV (1906) p. 415. — 7193 Pycnidiis in ramulis sparse insidentibus, epidermide tectis, globosis, subprominulis, flavo-brunneis, contextu indistincto, c. 400 μ. diam,; sporophoris parvis, indistinctis, vix prominentibus; sporulis elongato-ellipsoideis, triseptatis, apice rotundatis, demum obscure brunneis, 13-17 × 5-7.

Hab. in ramis emortuis Thujæ, Friedhöfe in Thuringia.

44. Hendersonia Ephedræ Hollós, Ann. Mus. Nat. Hung. IV (1906) 7194 p. 360, tab. IX, fig. 30. — Pycnidiis epidermide tectis, globosodepressis v. ellipsoideis, nigris, poro pertusis, 240-300 μ. diam., contextu parenchymatico; sporulis cylindraceis, rectis v. curvulis, utrinque rotundatis, initio hyalinis et continuis, dein flavo-brunneis, plerumque 7-septatis, non v. vix constrictis, rarius guttulatis, 30-50 × 5-6.

Hab. in ramis siccis Ephedræ distachyæ prope Kecskemét Hungariæ.

45. Hendersonia Crucheti Sacc. et Trott., Hendersonia Ephedræ Cru-7195

chet in Bull. Soc. Vaud. Sc. Nat. XLIV (1909) p. 475, nec Hollos. — Pycnidiis immersis, dein erumpentibus, seriatim dispositis, confertis, brunneo-nigris, apice leniter apertis (80-120  $\mu$ . diam.), sæpe confluentibus; sporulis cylindraceis, utrinque parum attenuatis, 6-8-septatis, in quoque loculo uniguttulatis,  $25 \times 4$ , brunneis.

Hab. in ramis siccis Ephedræ helveticæ, prope Sion Va-

lais Helvetiæ. — An satis diversa a præcedente?

46. Hendersonia Asparagi Passer. — Syll. X, p. 327 — var. minor 7196 Ter. Mariani, Atti Soc. it. Sc. nat. L (1911) p. 168. — A typo differt sporulis brevioribus, 13-16 > 3.

Hab. in caulibus emortuis Asparagi in horto bot. Coimbra,

Lusitania (A. Moller).

47. Hendersonia Alstræmeriæ (Speg.) Sacc. et Trott., Hendersonulina 7197 Alstræmeriæ Speg., Fungi Chilenses (1910) p. 161. — Pycnidiis sparsis, lenticularibus, 90-100 μ. diam., olivaceis, parvulis, ostiolato-perforatis; sporulis e cylindraceo ellipsoideis, 3-septatis, non constrictis, utrinque rotundatis, 12-14 × 4-5 e chlorino fulvellis.

Hab. in ramulis siccis emortuis Alstræmeriæ sp. Cerro A-

legre de Valparaiso, Chile Amer. austr.

48. Hendersonia microspora Massee, Kew Bull. (1910) pag. 4. — Py-7198 cnidiis dense gregariis, sæpius plagulas majusculas formantibus, erumpentibus, globulosis, atris, ostiolo minutissimo vix papillato, contextu indistincto donatis; sporulis elliptico-cylindraceis, utrinque obtusatis, 3-5-septatis, fuligineis, 6-7 × 3,5; sporophoris subconoideis suffultis.

Hab. in foliis emortuis v. languidis Oncidii luridi, Trinidad Indiæ occid. (I. H. HART). — Affinis Hendersoniæ Magnoliæ. 7199

49. Hendersonia gigantea J. Lind, Micromycetes from North-East Greenlandia, Kiobenhavn (1910) p. 161, tab. X, fig. 7. — Pycnidiis immersis, sæpe seriatim digestis, tectis, subglobosis, papillatis, brunneis, 225 μ. diam., contextu parenchamytico; sporulis cylindrico-fusoideis, flexuosis, læte flavo-brunneis, utrinque rotundatis, 92-108(-188) × 5-6, 7-septatis, ad septa non constrictis, guttulatis.

Hab. in foliis emortuis Caricis pullæ, Termometerfjeld

Groenlandia.

50. Hendersonia Caricis Hollós, Ann. Mus. Nat. Hungar. V (1907) 7200 p. 54. — Pycnidiis epidermide velatis, seriatim dispositis, depresso-oblongis, 180-250 × 140-180, fuscis, poro pertusis, contextu parenchymatico; sporulis cylindraceis, utrinque obtuse leniter attenuatis, curvulis, vermicularioideis, 15- vel pluriseptatis, sæpius

16-25-guttulatis, flavidulis,  $50-70 \approx 3-4$ ; sporophoris fasciculatis, filiformibus fultis.

Hab. in foliis Caricis strictæ prope Nagy-Körös Hungar.
51. Hendersonia caricicola Hollós, Ann. Mus. Nat. Hung. V (1907) 7201 p. 54. — Pycnidiis epidermide velatis, sparsis, depresso-globosis, nigris, poro pertusis, 210-250 μ. diam., contextu parenchymatico; sporulis fusoideis, rectis v. curvulis, initio continuis et hyalinis, dein flavidulis, 3-septatis, demum flavo-brunneis, 5-septatis, 6-guttulatis v. eguttulasis, 22-28 × 4-5.

Hab. in foliis siccis Caricis conglobatæ et C. præcocis prope Kecskemét Hungariæ. — Ab Hend. riparia Sacc., H. distante Brun., H. Stefansonii Rostr. diversa.

52. Hendersonia melicicola Speg., Myc. Argent. V, p. 373, in Anal. 7202 Mus. Nac. Buenos Aires XX (1910). — Matrice tota sordide fusco-cinerescente; pycnidiis hinc inde 3-12-aggregatis sed relaxatis, primo tectis dein erumpentibus, 150 μ. diam., ostiolo 25 μ. lato pertusis, membranaceis, contextu eximie parenchymatico, pellucido, olivaceo; sporulis subcylindraceis, rectis v. leniter curvulis, utrinque subattenuatis sed obtuse rotundatis, 30-35 × 5-6, primo hyalinis 1-3-septatis, serius olivaceis sæpius 7-septatis, ad septa leniter constrictulis.

Hab. ad culmos emortuos putrescentesque Melicæ laxifloræ in montanis prope Cacheuta, Argentina Amer. austr.

53. Hendersonia rhizomatophila Speg., Myc. Argent. V, p. 374, in 7203 Anal. Mus. Nac. Buenos Aires XX (1910). — Pycnidiis primo epidermide tectis dein erumpentibus plus minusve exertis sæpius 3-5-gregariis subglobosis 500-1000 μ. diam., nigris, glabris, non carbonaceis, ostiolo subrostrato ornatis; sporophoris dense constipatis subconoideis 10-15 × 3-5, subhyalinis, monosporis, paraphysibus filiformibus simplicibus v. ramosis quadruplo v. quintuplo longioribus cinctis; sporulis e cylindraceo subclavulatis, 26-42 × 6-8 rectis vel sæpius leniter curvulis, primo continuis vel 2-6-blastis hyalinis, serius sæpius 5-7-septatis ad septa non constrictis, pallide fuligineis.

Hab. ad rhizomata languentia Paspali vaginati circa Salta, Argentina Amer. austr.

54. Hendersonia Hierochloæ (Speg.) Sacc. et Trott., Hendersonulina 7204 Hierochloæ Speg., Fungi Chilenses (1910) pag. 161. — Pycnidiis sparsis v. laxe gregariis et subscriatis, epidermide tectis, globulosis, 75-80 p. diam., atris, coriacellis, ostiolo minuto perforatis;

sporulis cylindraceis v. lenissime subclavulatis, 3-septatis, subconstrictulis,  $14-16 \approx 5-6$ , olivaceis; sporophoris duplo brevioribus,  $5-10 \approx 2-3$ , hyalinis suffultis.

Hab in vaginis siccis Hierochloæ utriculatæ pr. Ciudad de Valdivia. Chile Amer. austr.

55. Hendersonia Oryzæ I. Miyake, Pilze Reispfl. Japan in Journ. College Agricult. Tokyo II (1910) p. 259, t. XIV, f. 58. — Pyenidiis epidermide tectis ostiolo papillato apertis, brunneis, ostiolo obscuriore, ellipsoideis, 100-125 μ. diam.; sporulis cylindraceis apice rotundatis, brunneis, 10-18 × 3-4, 3-septatis, ad septa demum constrictulis, in quaque cellula minute 2-3-guttulatis.

Hab. in foliis glumisque Oryzæ sativæ, in Japonia.

56. Hendersonia Phyllostachydis I. Miyake et Hara, in Bot. Mag. 7206 Tokyo (1910) p. (354) [japonice].

Hab. in Phyllostachydis sp. in Japonia.

57. Hendersonia kerguelensis P. Henn., Deutsche Südpolar-Exped. 7207 Bd. VIII (1906) Extr. p. 14, tab. II, fig. 21. — Pyenidiis gregariis, punctoideis, atris, innato-erumpentibus, subglobosis, poro pertusis, membranaceis, 80-100 μ. diam.; sporulis cylindraceo-subfusoideis, utrinque obtusiusculis, rectis vel curvulis, 3-7-septatis, haud constrictis, hyalino-fuscidulis, 15-24 × 3-4; sporophoris brevibus, hyalinis.

Hab. in foliis siccis Deschampsiæ antarcticæ et Agrostidis antarcticæ, in insul. Kerguelen (Werth).

58. Hendersonia Geasteris Hollós, Ann. Mus. Nat. Hung. IV (1906) 7208 p. 535. — Pycnidiis gregariis, depresso-globosis, fuscis, poro pertusis, 140-180 μ. diam., contextu parenchymatico; sporulis fusoideis, rectis v. curvulis, utrinque attenuatis, initio continuis, flavobrunneis, dein 7-septatis, brunneis, ad septa non constrictis, 30-42 × 5-6.

Hab. in stratu interno exoperidii Geasteris nani prope Monor Hungariæ.

59. Hendersonia geastericola Hollós, Ann. Mus. Nat. Hung. V (1907) 7209 p. 283. — Pycnidiis sparsis, erumpentibus, depresso-globosis, fuscis, poro pertusis, 100-120 μ. diam., contextu parenchymatico; sporulis cylindraceis, utrinque leniter attenuatis, acutatis, curvulis, vermicularioideis, 7-septatis, non constrictis, hyalinis, 28-34 × 2,5-3.

Hab. in stratu interno exoperidii Geasteris pseudolimbati, prope Jász-Szent-László Hungariæ. WOJNOWICIA Sacc. - Syll, X p. 328 XIV p. 960, XVIII p. 367.

1. Wojnowicia exilis (Corda) Sacc. et Trav. — Syll. XX p. 1145 — 7210 Sporocadus exilis Corda, Icon. fung. IV (1840) p. 39, t. 8, f. 110. — Cæspitulis effusis, fuscis, subtomentosis; pycnidiis convexis, subhemisphæricis, minutis, atro-fuscis, pilis sparsis, erectis, subulatis, septatis, fuscis tectis; sporulis oblongis, 2-septatis, non constrictis, utrinque rotundatis, hyalinis; sporophoris tenuissimis, sporulâ multo brevioribus suffultis. 4-5 ≥ 2-2.5.

Hab. in fragmentis ligneis Coniferarum, Reichenberg Bohemiæ.

2. Wojnowicia Ephedræ Hollós, Ann. Mus. Nat. Hungar. IV (1906) 7211 p. 364, tab. IX, fig. 33. — Pycnidiis epidermide tectis, sparsis, globosis, nigris, ostiolo conico setuloso erumpentibus, majorum inferioribus partibus hyphis flavidulo-brunneis, septatis, 3-4 μ. d. vestitis, magnitudine variis 210-450 μ. diam., contextu parenchymatico; setulis atro-brunneis, septatis, apice pallidioribus, obtusiusculis, 140-180 × 6-8; sporulis initio hyalinis, continuis, dein flavidulis, deorsum attenuatis, apice crassis, rotundatis, fusiformibus, 2-septatis, ad septa leviter constrictis, guttulatis, 24-34 × 4-5,5.

Hab. in ramis siccis Ephedræ distach yæ prope Kecskemét Hungariæ.

HENDERSONULA Speg. — Syll. III p. 445, XI p. 533, XIV p. 961.

1. Hendersonula botryosphærioides Bres., in Strasser III Nachtr. 7212 Pilze Sonntagb. in Verhandl. zool. bot. Gesell. Wien (1905) p. 618.

— Stromatibus erumpentibus, dothideaceis, cute laciniatim fissa cinctis, orbicularibus v. oblongis, 1-2 mm. latis, atris; pycnidis numerosis, obovatis v. compressis, plus minusve prominulis subpapillatis, 150-200 μ. diam. intus pallidis; sporulis luteis, obovatoelongatis v. subfusoideis, 1-3-septatis, haud constrictis, 13-20 × 7-10; sporophoris bacillaribus, 20-24 × 2 suffultis.

Hab. ad ramos emortuos Rhamni Frangulæ in Monte Sancto Sonntagberg Austriæ inf.

- Hendersonula conglobata (Sacc.) v. Höhn., in Strass. III Nachtr. 7218
   Pilz. Sonntagb. Verhandl. zool. bot. Gesell. Wien (1905) p. 618.
   Ita dicenda esset Sphæropsis conglobata (Fuck.) Sacc. Syll.
   III, p. 299 teste v. Höhnel.
- CRYPTOSTICTIS Fuck. Syll. III p. 433, X p. 330, XI p. 532, XIV p. 961, XVI p. 947, XVIII p. 369.

  Syll. Fung. XXII (V-1913)
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Cryptostictis lapagericola Speg., Fungi Chilenses (1910) p. 164, 7214 cum icon. — Pycnidiis amphigenis dispersis circinantibus vel in nervis seriatis, plus minusve numerosis, confertis, lenticularibus, 120-150 μ. diam., erumpentibus, atris; sporulis fusoideis vel ellipsoideo-fusoideis utrinque acutis, 4-septato-constrictulis, loculis 3 intimis fuligineis, 2 extimis conoideis hyalinis, supero setulis 2-3 brevibus (5-10 × 1) divaricatis armato, infimo in pedicellum, duplo triplove longiorem, 20-30 × 1 producto.

Hab. in foliis siccis subputrescentibus Lapageriæ roseæ in silvaticis Cerro Caracol de Concepcion Chile Amer. austr. — Ex descriptione, diversa a Pestalozzia Lapageriæ P. Henn.

2. Cryptostictis pleurochæta Speg., Myc. Argent. V, pag. 375, cum 7215 icon., in Anal. Mus. Nac. Buenos Aires XX (1910). — Pycnidiis plus minusve dense gregariis, tectis vel nudis, hemisphærico-depressis, 100-120 μ. diam., atris carbonaceis glabris, late irregulariterque ostiolatis, contextu indistincto; sporulis subclavatis 3-septatis, 30-35 × 10-12, loculis 3 internis fuligineis, superne truncatis, cellula suprema hyalina in setam subretrorsam rectam v. incurvam, 25-30 × 1, producta, infima hyalina conoidea in pedicellum concolorem breviusculum 10-15 × 2-3 attenuata.

Hab. vulgata ad ramulos aridos putrescentesque Montteæ aphyllæ in collinis Chacras de Corsia et montanis Potrerillos prope Mendoza Argentina Amer. austr.

3. Cryptostictis apoda Speg., Myc. Argent. V, pag. 374, in Anal. 7216 Mus. Nac. Buenos Aires XX (1910). — Pycnidiis matrice infuscata insidentibus solitariis v. paucis gregariis, primo cortice tectis dein denudatis pusillis, glabris, nigris, membranaceo-coriacellis. minute ostiolatis, hemisphærico-depressis 120-150 μ. diam., contextu minute denseque parenchymatico olivaceo; sporulis fusoideis utrinque attenuato-acutatis, 20 × 5, sæpius 3-septatis ad septa non vel vix constrictis, rectis v. leniter inæquilateralibus, loculis omnibus pallide fuligineis, extimis conoideis, supremo setulibus tribus apicalibus, 5 × 1, molliusculis erectis prædito, infimo stipite destituto.

Hab. ad ramos emortuos putrescentes Achyroclines saturejoidis in dunis maritimis prope Necochea Argentina America australis.

SCIRRHIOPSIS P. Henn., Verh. bot. Ver. Prov. Brandenb. XLVII (1905) pag. XII (Etym. Scirrhia et opsis aspectus). — Stromata linearia, conferta confluentia, sub epidermide nidulantia, per rimas

parallelas erumpentia, atra, loculis immersis; sporulæ oblongæ, pluriseptatæ, coloratæ, hendersonioideæ.

1. Scirrhiopsis hendersonioides P. Henn., l. c. p. XII. — Stromati-7217 bus linearibus inter nervos parallele dispositis, sæpe confluentibus, epidermide colore cinereo-fuligineo tincta cinctis, rima longitudinali fissa tectis, atris; loculis immersis, globulosis; sporulis oblonge ellipsoideis v. fusoideis, utrinque obtusis, rectis v. subcurvulis 3-rarissime 4-septatis dein subconstrictis, fuscis, 8-15 ≈ 3,5-4,5; conidiophoris brevibus, hyalinis.

Hab. in vaginis siccis Phragmitis communis, Hellsee Germania. — Verisimiliter status conidicus Scirrhiæ rimosæ.

## Sect. 7. Phæodictyæ.

CAMAROSPORIUM Schulz. — Syll. III p. 459, X, p. 338, XI p. 536, XIV p. 964, XVI p. 951, XVIII p. 369.

Camarosporium Trevoæ (Speg.) Sacc. et Trott., Camarosporulum 7218
 Trevoæ Speg., Fungi Chilenses (1910) p. 166. — Pycnidiis ligno
 denudato insidentibus superficialibus, laxe gregariis hemisphærico depressis, 90-120 μ. diam., glabris, atris, subcarbonaceis, obsolete
 ostiolatis; sporulis ellipsoideis v. obovatis, fuligineis, septis trans versis 1-3, verticalibus 0-1, ad septa plus minusve constrictulis,
 14-18 × 8-9.

Hab. frequens in ramis vetustis siccis Trevoæ trinervis in collibus Batuco Chile Amer. austr.

Camarosporium Lepidii Hollós, Ann. Mus. Nat. Hung. VI (1908) 7219 pag. 535. — Pycnidiis foliicolis, innato-erumpentibus, globulosis, ostiolatis, nigris, 80-100 μ. diam., contextu celluloso; sporulis subglobosis v. ellipsoideis, 3- horizontaliter, 1-2-verticaliter septatis, ad septa non constrictis, brunneis, 10-16 × 8-10.

Hab. in foliis languidis Lepidii ruderalis pr. Kecskemét Hungariæ.

3. Camarosporium Hibisci Hollós, Ann. Mus. Nat. Hung. IV (1906) 7220 p. 367. — Pycnidiis erumpentibus, globosis, conico-papillato-ostiolatis, nigris, 400-500 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, initio continuis et hyalinis, dein 3- interdum 4-5-septatis, ad septa non vel leniter constrictis, loculis uno alteroque longitrorsum septatis, dilute umbrinis, 14-24 × 7-10.

Hab. in ramis siccis Hibisci syriaci, Kecskemét Hungariæ.

4. Camarosporium Lyndonvillæ Sacc., Not. Myc. VII, Ann. Myc. IV 7221 (1906) p. 277. — Pycnidiis densiuscule gregariis, subcutaneo-erumpentibus, subglobosis, nigris, obtuse papillatis, 0,5 mm. diam.; contextu parenchymatico, fuligineo; sporulis tereti-oblongis, utrinque rotundatis, rectis curvulisve, 5-7-septato-muriformibus, ad septa non v. vix constrictis, 25-28 × 7-8, olivaceo-fuligineis; sporophoris crassis brevibus, celluliformibus, 6-8 × 5-6.

Hab. in ramulis Hibisci syriaci culti Lyndonville N. Y., Amer. bor. (C. E. FAIRMAN).

5. Camarosporium megalosporum Da Camara, Mycetæ aliquot Theo- 7222 bromæ Cacao in Sancti Thomé Insula, Lisboa (1910) p. 5, tab. VI fig. 3-7. — Pycnidiis subsuperficialibus, primo epidermide tectis dein erumpentibus, plus minus globosis, atris, ostiolo rotundo pertusis, 250-450 μ. diam.; sporulis oblongo-ellipsoideis, primo umbrinis et pluriguttulatis, dein fuligineis demumque brunneis et eguttulatis, utrinque rotundatis, septis 7 usque ad 14 transversalibus, 3-4- longitudinalibus et adhuc plus numerosis, ad septa leniter constrictis, 37-70 × 12-28.

Hab. in cortice Theobrom @ Cacao in ins. St. Thomé (J. J. DE ALMEIDA et CANNAS MENDES).

6. Camarosporium Tamaricis Hollós, Ann. Mus. Nat. Hung. IV (1906) 7223 p. 367. — Pycnidiis sub epidermide solitariis v. gregariis, erumpentibus, globosis, nigris, minute papillato-ostiolatis; sporulis ellipsoideis, brunneis, 3-septatis, loculis uno alteroque longirostrum septatis, 18-24 × 8-10.

Hab. in ramis siccis Tamaricis africanæ, Kecskemét Hungariæ.

7. Camarosporium Potebniæ Sacc. et Trott., Camarosporium Tamaricis 7224 Potebnia, Myc. Stud. Ann. Myc. V (1907) p. 18. fig. 38 et Trav. Soc. Nat. Univ. Kharkow XXXXIII (1907). — Pycnidiis ¹/₂ mm. cr., obscure brunneis; sporulis 28 ≈ 12, brunneis, transverse 3-5-septatis, longitudinaliter 1-septatis.

Hab. in ramis Tamaricis gallicæ, socia Hendersonia Tamaricis f. minore, Kharkow Rossia. — An satis diversum a præcedente anteriore?

8. Camarosporium pulchellum Speg., Myc. Argent. V, p. 377, cum 7225 icon., in Anal. Mus. Nac. Buenos Aires XX (1910). — Matrice extus tota sordide fuscescente, intus immutata; pycnidiis eutypeis, sparsis v. laxe gregariis, ligno omnino immersis, e latere compressis, 180-300 μ. diam., tenui-membranaceis, atris, nucleo fuscescenti

subcarnosulo, cellulis proliferis 5-10  $\times$  3-5, paraphysibus filiformibus longiusculis, 50-60  $\times$  1, hyalinis vestito, farctis; sporulis ex ellipsoideo obovatis, 3-5-septatis, 36-40  $\times$  18-22, ad septa non vel leniter constrictis, loculis septo altero longitudinali continuo divisis, fuligineis, duobus centralibus sæpius obscurioribus, non vel grosse 1-guttulatis.

Hab. ad ramos aridos putrescentes Citri Limonis, Orán Salta Argentina Amer. austr.

9. Camarosporium Pteleæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 7226 p. 367. — Pycnidiis dense gregariis, erumpentibus, globosis, conico-papillatis, fuscis, c. 0,5 mm. diam.; sporulis ellipsoideis, initio hyalinis, continuis, dein brunneis, 1-3-septatis, ad septa plerumque leviter constrictis, in 1-3 cellulis longitudinaliter septatis, 18-24 × 8-10.

Hab. in ramis emortuis Pteleæ trifoliatæ, Kecskemét Hungariæ.

10. Camarosporium Persicæ Maubl., Bull. Soc. Myc. de Fr. XXIII 7227 (1907) p. 144, tab. XX, fig. 21-22. — Pyenidiis gregariis, globosis, papillatis, erumpentibus, demum subliberis, poro pertusis, 300-400 μ. diam.; sporulis oblongis, utrinque rotundatis, 3-5-septatis, ad septa non constrictis, loculis 2-3 septo longitudinali, sæpe obliquo divisis, pallide fuligineis, 17-23 × 8-9; sporophoris brevissimis.

Hab. in ramis emortuis Persicae vulgaris, Parisiis Gallia.

11. Camarosporium Rhodotypi Hollós, Növényt. Közlemén. VI (1907) 7228 Extr. p. 9. — Pycnidiis sub epidermide dense gregariis, globosodepressis, nigris, 210-350 μ. diam.; sporulis oblongo-ellipsoideis v. cylindraceis, initio continuis et hyalinis, dein flavidulis, demum dilute umbrinis, 3-5-septatis, ad septa non v. vix constrictis, in 1-3 v. pluribus cellulis longitudinaliter aut oblique divisis, 18-24 × 8-12.

Hab. in ramis siccis Rhodotypi kerrioidis, Kecskemét Hungariæ.

12. Camarosporium Kerriæ Hollós, Ann. Mus. Nat. Hungar. VIII 7229 (1910) p. 8. — Pycnidiis epidermide tectis, sparsis, atris, depressoglobosis, 200 μ. diam., contextu celluloso; sporulis ellipsoideis 3-horizontaliter, 1-verticaliter septatis, ad septa non constrictis, dilute umbrinis, 14-16 × 7-8.

Hab. in ramulis siccis Kerriæ japonicæ, Nagy-Körös Hungariæ.

13. Camarosporium Cladrastidis P. Henn. in Kabát et Bubák, Fungi 7230

imp. exs. n. 358 (1906). — Pycnidiis subcutaneo-erumpentibus, sparsis vel aggregatis confluentibusque, depresso-globosis, subcoriaceo-membranaceis, fuscis, subostiolatis, ca. 300-350 μ. diam., sporophoris filiformibus, hyalinis, varie longis; sporulis ellipsoideis, rectis, primo subhyalinis 1-septatis, dein fuscis 3- rarissime 5-septatis, interrupte muriformibus, 12-22 × 8-13.

Hab. in ramis siccis Cladrastidis luteæ, in horto botan. Dahlem Germaniæ.

14. Camarosporium Astragali von Höhn., Ann. Naturhist. Hofmus. 7231 Wien XX (1905–1906) Heft 4, pag. 5 extr. — Pycnidiis sparsis, erumpentibus, demum fere superficialibus, nigris, parietibus tenuibus præditis, carbonaceis, globosis, basi depressis distincte ostiolato-papillatis, 250-300 mm. cr.; sporulis obscure umbrinis, elongatis, cylindraceis, utrinque rotundatis, transverse 3- raro 4-septatis, raro septis longitudinalibus præditis, tenuiter tunicatis, 16-21 × 6-7.

Hab. in rhachidibus foliorum Astragali sp., Erdschias-Dagh 2300 m. alt., Anatoliæ. — Ob septa longitudinalia est Camarosporium potius quam Hendersonia et ab Hend. Tragacanthi certe diversa.

- 15. Camarosporium astragalinum Sacc. et Trott., Camarosporium A-7232 stragali Hollós, Ann. Mus. Nat. Hung. IV (1906) p. 365, t. VIII, fig. 10. Pycnidiis sub epidermide nidulantibus, solitariis v. gregariis, erumpentibus, depresso-subglobosis, olivaceo-brunneis, subcoriaceis, glabris, minute papillato-ostiolatis, c. 0,5 mm. diam.; sporulis oblongo-ellipsoideis, initio hyalinis, continuis, dein flavidulo-brunneis, 3-septatis, ad septa non constrictis, 14-18 × 6, cellulis 1-2 longitudinaliter septatis.
  - Hab. in caulibus siccis Astragali virgati prope Izsák Hungariæ. Socia adest Cucurbitaria Astragali cujus videtur status pycnidicus. An satis diversum a præcedente?
- 16. Camarosporium Dulcamaræ Diedicke, Ann. Mycol. IV (1906) 7233 pag. 415. Pycnidiis in ligno insidentibus, depresse conoideis, apice nigrescente nitidulo corticem rumpentibus, c. ½ mm. d.; sporulis ovoideis, e flavo obscure brunneis, triseptatis, 13-20 × 8-9, loculis mediis septum longitudinalem plus vel minus distinctum ostendentibus.

Hab. in ramis emortuis Solani Dulcamaræ, Delitzsch Thuringia.

17. Camarosporium phlomidicola Bubák, Bull. Herb. Boiss. 2 sér. 7234

VI (1906) pag. 483. — Pyenidiis sparsis, in cortice nidulantibus, epidermide tectis, e rotundato elongatis, fortiter depressis, 120-200  $\mu$ . latis, nigris, breviter papilliformi prominentibus, contextu flavo-brunneo, supra castaneo-brunneo; sporulis variabilibus, ovoideis, ex ellipsoideo elongatis, 11-15  $\approx$  6,5-9, transverse 1-3-septatis, septo longitudinali unico indistincto sæpe donatis, utrinque rotundatis, obscure castaneo-brunneis.

Hab. in caulibus emortuis Phlomidis tuberosæ prope Ulcinj Montenegro.

18. Camarosporium andicola (Speg.) Sacc. et Trott., Camarosporulum 7235 andicola Speg., Myc. Argent. V, p. 375, in Anal. Mus. Nac. Buenos Aires XX (1910). — Pycnidiis per peridermium fissum erumpentibus, globoso-depressis 150-180 μ. diam., molliusculis, atris, minute ostiolatis, contextu parenchymatico parum distincto, fuligineo, hyphis nonnullis crassiusculis repentibus adspersis; sporulis ellipsoideis v. obovatis, quandoque continuis quandoque transverse uniseptatis, quandoque cruciatim septatis, sæpius tamen transverse 3- longitudinaliter 1-septatis, pallide olivaceis, 10-12 × 9-10, ad septa non v. lenissime constrictis.

Hab. ad ramos emortuos Lippiæ microphyllæ in montanis Potrerillos prope Mendoza Argentina Amer. austr.

19. Camarosporium lyciicola (Speg.) Sacc. et Trott., Camarosporulum 7286 lyciicola Speg., Myc. Argent. V, p. 376, Anal. Mus. Nac. Buenos Aires XX (1910). — Pycnidiis sparsis v. hinc inde laxe gregariis innato-erumpentibus e globoso depressis 180-200 μ. diam., glabris, coriacellis, obsolete ostiolatis, contextu indistincto atro; sporulis globosis, ovoideis v. ellipsoideis, sæpius transverse 3-septatis, sæpe subtorulosis, loculis pro parte v. omnibus septo altero longitudinali recto v. obliquo divisis, 10-16 × 8-12, levibus, fusco-olivaceis.

Hab. ad ramulos dejectos subputrescentesque Lycii chilensis in montanis Potrerillos prope Mendoza Argentinæ Amer. austr.

20. Camarosporium chilense Speg., Fungi Chilenses (1910) p. 165, 7237 cum icon. — Pycnidiis cortice tectis eaque fissa erumpentibus et plus minusve denudatis, laxe gregariis subseriatis, globoso-depressis, 100-200 μ. diam., carbonaceis, vix ostiolato-perforatis; sporulis globosis v. ellipsoideis, transverse 1-3-, longitudinaliter 0-1-septatis, 2-4-6-locularibus, primo fulvellis, pellucidis, tunica mucosa hyalina tenui involutis, serius nudis opacis fuligineis 10-16 × 8-10.

Hab. in ramulis siccis Haplopappi canescentis? in collibus San Bernardo prope Santiago, Chile Amer. austr.

21. Camarosporium Achilleæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 7288 pag. 365, tab. IX, fig. 25. — Pycnidiis erumpentibus, depressosphæricis, nigris, apice perforatis, 210-280 μ. diam., contextu parenchymatico; sporulis oblongis, utrinque rotundatis, initio hyalinis, continuis, dein flavidulis, 1- mox 3-septatis, ad septa non v. vix constrictis, demum in una cellula longitudinaliter septatis, 14-18 ≈ 5-6.

Hab. in caulibus siccis Achilleæ setaceæ prope Kecskemét Hungariæ. — A Cam. Compositarum Cooke et Harkn. sporulis minoribus diversa species.

22. Camarosporium Chrysanthemi Hollós, Ann. Mus. Nat. Hung. IV 7239 (1906) p. 366. — Pycnidiis erumpentibus, globosis, conico-papillato-ostiolatis, nigris, 400-500 μ. diam., contextu parenchymatico; sporulis oblongo-ellipsoideis, flavo-brunneis, 3-septatis, ad septanon constrictis, in 1-2 interdum 3 cellulis longitudinaliter septatis 14-18 × 7-8.

Hab. in caulibus emortuis Chrysanthemi indici, Kecskemét Hungariæ

23. Camarosporium Artemisiæ Hollós, Ann. Mus. Nat. Hungar. VII 7240 (1909) p. 56. — Pycnidiis sparsis v. seriatim dispositis, epidermide fissa tectis, dein suberumpentibus, depresso-sphæricis, nigris, 0,5-0,75 mm. diam., papillato-ostiolatis, contextu celluloso; sporulis oblongis, utrinque rotundatis, initio hyalinis et continuis, mox flavidulis, demum dilute umbrinis, 3-5- rariter 6-7-septatis, ad septa non constrictis, loculis uno alterove longitrorsum v. oblique septatis, 18-24 × 8-9, rarius 30-34 × 9-10.

Hab. in caulibus siccis Artemisiæ scopariæ prope Kecskemét Hungariæ.

24. Camarosporium Forsythiæ Hollós, Ann. Mus. Nat. Hungar. IV 7241 (1906) p. 366, tab. IX, fig. 32. — Pyenidiis sub epidermide nidulantibus, erumpentibus, depresso-globosis, nigris, c. 350 μ. d.; sporulis ellipsoideis, initio hyalinis et continuis, dein 1- mox 3- septatis, demum brunneis, ad septa leviter constrictis, 1-2- vel 3 cellulis longitudinaliter septatis, 14-20 × 8-10.

Hab. in ramis emortuis Forsythiæ suspensæ Nagy-Körös Hungariæ.

25. Camarosporium Opuli Hollós, Ann. Mus. Nat. Hung. IV (1906) 7242 p. 368. — Pycnidiis sub epidermide gregariis, depresso-globosis, nigris, apice ostiolo minuto papillatis, c. 0,5 mm. diam., contex tu parenchymatico; sporulis ellipsoideis, initio hyalinis, dein flavidu-

lis, continuis, mox 1-3-septatis, ad septa non vel leviter constrictis, loculis uno alterove longitrorsum septatis, fuscis,  $16-20 \approx 8-11$ .

Hab. in ramis siccis Viburni Opuli, Kecskemét Hungariæ.

26. Camarosporium santiaguinum Speg., Fungi Chilenses (1910) p. 166. 7248 — Pycnidiis sparsis lenticularibus, 100-120 μ. diam., cortice innatis, epidermide tectis, membranaceis, atris, obsolete ostiolatis; sporulis irregulariter subellipsoideis, 10-18 × 5-10, fuligineis, septis transversis 3, longitudinalibus 0-1, ad septa plus minusve constrictis.

Hab. in caulibus siccis Vincæ majoris, Cerro de Santa Lucia de Santiago Chile Amer. austr.

27. Camarosporium elæagnellum Fairm. Ann. Myc. VIII (1910) p. 322. 7244 Pycnidiis fuligineis v. tabacino-brunneis, erumpenti-superficialibus, epidermide fissa cinctis, approximatis, globosis, papillatis; sporophoris hyalinis; sporulis oblongo-ellipsoideis, utrinque rotundatis, 3-septatis, demum 5-septatis, muriformibus, olivaceo-brunneis, 15-30 × 10.

Hab. ad ramulos Elæagni longipedis culti, Lyndonville N. Y. Amer. bor.

- 28. Camarosporium Elæagni Potebnia, Myc. St. Ann. Myc. V (1907) 7245 p. 18, fig. 37 et Trav. Soc. Nat. Univ. Karkov XXXXIII (1907). Pycnidiis initio immersis dein erumpentibus 350-500 × 200-250, apice ostioli loco papillatis, quandoque mycelio pseudostromatico basi circumdatis; sporulis forma et magnitudine variabilibus; aliis 1-locularibus 9-10 μ. cr. (Conioth. Montagnei?), aliis subinde 3-4-locularibus, aliis Hendersoniæ-similibus 21-23 × 8-10 (Henders. Tamaricis var. Elæagni Cooke), aliis denique murali-septatis, constrictis, omnino camarosporioideis, 25-28 × 8-10.
  - Hab. in ramis siccis Elæagni angustifoliæ in Kharkov, Rossia. Verisimiliter sporulæ 1-cellulares sunt tantum immaturæ vel abnormes!
- 29. Camarosporium Hollosii Sacc. et Trott., Camarosporium Elæagni 7246 Hollós, Ann. Mus. Nat. Hung. VIII (1910) pag. 8. Pycnidiis sub epidermide nidulantibus, gregariis, atris, globosis, circiter 0,5 mm. diam., ostiolo conico longo, corticem perforante præditis; sporulis oblongo-ellipsoideis v. cylindraceis, rectis v. leviter curvulis, dilute umbrinis, 4-7-plerumque 6-septatis, non constrictis, in 1-3 v. pluribus cellulis oblique divisis, 22-30 × 8-9.

Hab. in ramis emortuis Elæagni angustifolii pr. Kecskemét Hungariæ. — An species diversa a præcedente?

30. Camarosporium Tricyclæ Speg., Myc. Argent. V, p. 377, in Anal. 7247 Mus. Nac. Buenos Aires XX (1910). — Pycnidiis sparsis v. laxe gregariis, primo tectis, dein, cortice delapso, superficialibus, semilenticularibus, coriacellis, atris, glabris, 150-200 μ. diam., contextu opaco indistincto; sporulis ellipsoideis v. ellipsoideo-ovoideis, medio 1-septatis, 10-12 × 8-10, ad septum medium non v. vix constrictis, loculo supero vel utrinque longitudinaliter uniseptatis, levibus, olivaceis.

Hab. ad ramos emortuos aridosque Tricyclæ spinosæ in montanis Potrerillos prope Mendoza Argentina America austr.

31. Camarosporium tricyclinum Speg., Myc. Argent. V, p. 377, in 7248 Anal. Mus. Nac. Buenos Aires XX (1910). — Pycnidiis sparsis v. subgregariis, primo tectis dein denudato-superficialibus, subhemisphæricis, 150-250 µ. diam., atris, glabris, coriacellis, minute papillato-ostiolatis, contextu indistincto atro; sporulis subellipsoideis utrinque rotundatis, transverse 3-septatis, rectis v. inæquilateralibus, ad septa non v. vix constrictis, 15-18 × 7-9, loculis centralibus sæpius longitudinaliter divisis, olivaceis.

Hab. ad ramos emortuos Tricyclæ spinosæ in montanis Potrerillos Argentina Amer. austr.

32. Camarosporium Roumeguerei Sacc. — Syll. III, p. 469. — var. 7249
Halimi R. Maire, Bull. Soc. bot. Fr. LIV (1907) p. CLXXXIX.
— A typo differt sporulis crassioribus, circ. 16-20 × 9-13, transverse 2-3-septatis.

Hab. ad gallas in ramis Atriplicis Halimi, Khreider Africæ bor.

33. Camarosporium Obionis Jaap, Verh. Bot. Ver. Prov. Branden-7250 burg (1905) p. 97, Exsice. n. 98. — Pycnidiis depresso-globosis, dense approximatis, 200 μ. diam.; contextu pallide fiavo 10 μ. cr., circa ostiolum brunneo; sporophoris simplicibus, hyalinis, usque ad 70 μ. longis; sporulis 3-5-locularibus muriformibusque, pallide melleis, 18 × 12, versiformibus, ovoideis, late ellipsoideis v. subrotundis.

Hab. in caulibus emortuis Obionis portulacoidis in insula Amrum Schleswig-Holstein, socia Diplodina Obionis.

34. Camarosporirm Thujæ Hollós, Növényt. Közlemén. VI (1907) 7251 Extr. p. 9. — Pycnidiis sub epidermide nidulantibus, erumpentibus, sparsis, globoso-depressis, nigris, c. 400 μ. diam.; sporulis ellipsoideis, 3-septatis, non v. vix constrictis, loculis uno alteroque longitrorsum septatis, flavo-brunneis, 13-15 × 6-8.

Hab. in ramis siccis Thujæ occidentalis, Kecskemét Hungariæ.

35. Camarosporium Phyllostachydis Miyake et Hara, in Bot. Mag. 7252 Tokyo (1910) p. (354) [japonice].

Hab. in Phyllostachydis sp. in Japonia.

36. Camarosporium Stipæ Diedicke, Aufzähl. Erfurts Micromyc. (1910) 7253 p. 89. — Pycnidiis sparsis, subcutaneis, dein erumpentibus et leviter prominulis, subglobosis, 120 μ. diam., contextu dense parenchymatico, maturitate vertice dehiscentibus, atro-brunneis; sporophoris brevibus; sporulis late fusoideis, utrinque acutatis, cellula ima hyalina, ultima pallida, ceteris flavo-brunneis, 3-5-septato-muriformibus,  $26-35 \approx 10$ .

Hab. in foliis emortuis Stipe capillate, Schwellenburg pr. Erfurt Germaniæ.

- 37. Camarosporinm Henningsianum Kab. et Bub. in Hedw. LII (1912) 7254 p. 355. — Ita vocandum Cam. Amorphæ P. Henn. (1908) — Syll. XVIII, pag. 370 — non v. vix Cam. Amorphæ Sacc. (1883) — Syll. II, p. 311.
- PIRINGA Speg. Myc. Argent. V, p. 378, in Anal. Mus. Nac. Buenos Aires XX (1910) (Etym. nomen familiare filiæ auctoris et synon. Gardeniæ). — Pycnidia superficialia, minuta, nigra, atro-villosa; sporulæ muriformes olivaceæ. — Genus a Cytosporio pycnidiis villosis recedens; huc quoque ducendum Cytosporium basitrichum Sacc.
- 1. Piringa setulifera Speg., Myc. Argent. V, p. 378, in Anal. Mus. 7255 Nac. Buenos Aires XX (1910). — Matrice sæpius cortice denudata plus minusve nigrefacta; pycnidiis sparsis v. hinc inde pauci-gregariis, udis globosis, 150-220 µ. diam., siccis collabescentibus, astomis, contextu olivaceo indistincto donatis, setulis patentiusculis rigidulis rectiusculis apice obtusissimis 100-120 × 10, non v. vix subincrassatis continuis v. 1-2-septatis, obscure fuligineis vestitis; sporulis obovatis, septis summopere ludentibus, transversis 0 v. 2 longitudinalibus 0 v. 1, ad septa non constrictis levibus 14-18 » 8-10.

Hab. ad ramulos emortuos Verbenæ asperæ in montanis Potrerillos prope Mendoza Argentina Amer. austr.

2. Piringa andina Speg., l. c., pag. 378. — Ramulis infectis cortice 7256 plane orbatis, pallide cinerescentibus; pycnidiis sæpius irregulariter sparsis rarius hinc inde pauci-gregariis, primo tectis dein denudatis hemisphærico-de pressis, 120-180 µ. diam., atris, coriacellis

villosulis, contextu parenchymatico ægre perspicuo; sporulis ellipsoideis utrinque subattenuato-acutatis, rectis v. leniter inæquilateralibus, 14-18 × 8-10, sæpius transverse 3-septatis, loculis uno alterove septo longitudinali recto v. obliquo divisis, olivaceis, ad septa transversa lenissime constrictis.

Hab. ad ramos emortuos Lippiæ microphyllæ in montanis Potrerillos prope Mendoza, Argentina Amer. austr.

- THYROCOCCUM Sace. Syll. X, p. 642 (1892) ut subg. Stemphilii, non v. Höhn. Fragm. z. Mykol. n. 155 (1901), nec Bubák \*), nec Buchanan \*\*), Cfr. Ann. Mycol. XI (1911) p. 253, ut genus. (Etym. thyra fenestra et coccum granum). Pycnidia mox erumpentia, globulosa, atra, contextu tenuissimo. Sporulæ globoso-sarciniformes, clathratæ, coloratæ, sporophoris filiformibus sursum furcatis v. varie ramosis hyalinis suffultæ. Præeunte cl. prof. v. Höhnel, cui exemplar meum communicavi, pycnidium adest etsi tenuissimum, hinc non Stemphylium sed potius Camarosporium. Tamen præsentibus sporophoris ramosis et excipulo tenuissimo genus servandum puto. Thyrococcum v. Höhn. nec Sace. nunc Thyrostroma a von Höhn. in litt. vocatur, sed a Steganosporio non satis differt.
- Thyrococcum punctiforme Sace., l. c. sub Stemph. (Thyrococc.) 7257 punctiforme. Sporophora usque ad 30 ≈ 2, semel raro bis furcata. Num Camarosporium Atriplicis d'Alm. et da Cam. Syll. XVIII, p. 373 et Camar. Halimi Maubl. Syll. XVIII, p. 374 sint speciei præsentis varietates caulicolæ inquirendum.
- MYXOCYCLUS Riess in Fresen. Beitr. I (1852) p. 63 (Etym. myxa mucus et cyclus circulus, ob sporulas muco obvolutas). A generibus Steganosporio, Hendersonia et Camarosporio rite distinguitur: pycnidii contextu crasso, sporulis murali-divisis et initio strato mucoso obvolutis.
- Myxocyclus polycystis (B. et Br.) Sacc., Ann. Mycol. VI (1908) 7258
   p. 559, Myxocyclus confluens Riess in Fresen. I, p. 63, t. VIII,
   f. 41-45 (1852), Steganosporium muricatum Bonord. Handb. p. 60,
   f. 52 (1851) Syll. III, p. 806 Steganosporium Betulæ Bres. ap.

<sup>\*)</sup> Cfr. Ber. Deutsche Bot. Gesell. 1910.

<sup>\*\*\*)</sup> Cfr. Mycologia, Jan. 1911.

Noelli, in Malp. (1903) p. 417 et Syll. XVIII, p. 488 — Hendersonia polycystis B. et Br. (1850) — Syll. III, p. 441.

Hab. in cortice Betulæ albæ in Germania, Britannia, in agro Tridentino (Bresadola), Parisiensi, Parc. de S. Cloud (P. Hariot) etc. — Sporulæ 55-70 × 20-21; pedicellus usque ad 80-90 μ. longus. — Teste Tulasneo est status pycnidicus Massariæ Argi, nec Pseudovalsæ lanciformis ut autumaverat Currey.

**DICHOMERA** Cooke — Syll. III p. 471, X p. 348, XIV p. 967, XVIII p. 375.

Dichomera prunicola Ell. et Dearn., Fungi Columb. n. 2021 (1905). 7259
 Stromatibus numerosis, erumpentibus, 1-1,5 mm. diam., subcarnosis, orbicularibus, epidermide rupta cinctis, depressis, nigris, intus, præcipue madore expallidis; pycnidis in quoque stromate 3-4, immersis, minutis, obsolete ostiolatis; sporulis globosis, 7-10 μ. diam., subinde ovoideis, 10-12 × 7-8, brunneis, 1-5-septatis, sæpius 1-septatis.

Hab. in ramis emortuis Pruni virginianæ, London Ontario Canada Amer. bor. (Dearness, qui diagnosim communicavit).

2. Dichomera Carpini Griff. et Maubl., Bull. Soc. Myc. Fr. XXV 7260 (1909) p. 59, cum icon. — Stromatibus sparsis, in cortice demum fisso nidulantibus, nigris, simplicibus v. sæpius 2-3-locularibus, poro unico centrali apertis, nucleo nigro; sporulis ellipsoideis v. rarius subreniformibus, biseptatis, loculis 1-2 medio septo longitudinaliter v. oblique divisis, rufo-brunneis, 13-18 ≈ 6-8; sporophoris rectis, brevibus.

Hab. in ramulis exsiccatis Carpini Betuli, Rigny-sur-Arroux, Saône-et-Loire Galliæ (Flageolet).

## Sect. 7. Hyalodictyæ.

HYALOTHYRIDIUM Fl. Tassi — Syll. XVI p. 955.

Hyalothyridium mutilum (Fr.) Sacc. et Trott., Camarosporium? mutilum (Fr.) Sacc. et Trav. — Syll. XIX, p. 219 — Sphæria mutila Fr. p. p. (Cfr. Diplodia mutila Fr. — Syll. III, p. 353) — Currey in Trans. Linn. Soc. XXII (1858) p. 284, tab. 49, f. 191. — Pycnidiis . . . . . sporulis copiosis, e hyalino chlorinis, forma variabilibus, fusoideo-oblongis, sæpe curvulis, 20-30 μ. long., trans-

verse 5-septatis sæpeque septis 1-2-longitudinalibus partitis et cuboideo-nucleatis.

Hab. in ramis corticatis Populi sp. in Suecia.

2. Hyalothyridium leptitanum Sacc. et Trott., in Ann. Mycol. X (1912) 7262 p. 513. — Pycnidiis erumpenti-superficialibus, nigris, subglobosis v. leviter depressis, <sup>1</sup>/<sub>4</sub> mm. circ. cr., contextu brunneo indistincte parenchymatico; sporulis ovato-ellipsoideis, utrinque præcipue apice obtuse rotundatis, transverse 1-3-septatis, rarius 4-septatis, loculis 1-2 v. omnibus septo longitudinali recto v. obliquo partitis, ad septa non v. vix constrictis, 16-18 × 9-10, hyalinis v. subchlorinis, plasmate multipartito, hine multiguttulatis; sporophoris brevibus, mox evanidis, hyalinis.

Hab. in ramulis decorticatis emortuis sed adhuc stantibus Rhois oxyacanthæ M. Mergheb pr. Homs (Leptis magna) Tripolitaniæ, Afr. bor., socio Coniothecio Rhois. — Ab affini Hyal. viburnicola Tassi præcipue recedit forma et septatione sporularum, matrice et patria.

## Sect. 8. Scolecosporæ.

**SEPTORIA** Fr. — Syll. III p. 474, X p. 349, IX p. 538, XIV p. 967, XVI p. 956, XVIII p. 376.

1. Septoria Cirrosæ Sacc., Ann. Mycol. VI (1908) p. 555. — Maculis 7263 amphigenis, sed supra distinctioribus, orbicularibus, 8-10 mm. d., late atro-purpureo marginatis, medio alutaceis; pycnidiis amphigenis, sed supra copiosioribus, dense gregariis, punctiformibus, prominulis, nigricantibus; sporulis bacillaribus, utrinque obtusulis, 36-45 × 2-2,5, rectiusculis, 4-5-nucleato-pseudoseptatis, hyalinis.

Hab. in foliis languidis Clematidis cirrosæ, Villa Favorita, Palermo, Sicilia (J. H. Mattei). — Ab affinibus S. Clematidis-Flammulæ et S. Flammulæ notis datis distinguenda videtur.

Septoria Lycoctoni Speg. — Sacc. Syll. III, p. 525. — var. ma- 7264 crospora C. Mass., in Madonna Verona III (1909) p. 22. — Maculis cinereis zona atro-fusca limitatis; pycnidiis epiphyllis paucis; sporulis filiformibus falcatis 35-50 ≥ 1,5-2.

Hab. in foliis languidis Aconiti Lycoctoni L., Badia Calavena, Verona, Ital. bor.

Septoria Aconiti Bacc., Funghi Schen-Si sett., Nuovo Giorn. bot. 7265
 it. N. S. XII (1905) p. 697. — Maculis fuscis, rotundis, bullatis,

margine rubescentibus; pycnidiis sparsis, hypophyllis, minutis, ostiolo minuto inconspicuo, 90-100  $\mu$ . latis; sporulis filiformibus, hyalinis, indistincte pluriseptatis 45-48  $\mu$ . cr.

Hab. in foliis Aconiti sp. in monte Thac-pei-san Sinarum.

4. Septoria Sisymbrii P. Henn. et Ranojevic, Ann. Mycol. VIII 7266 (1910) p. 390, fig. 16-18, Kab. et Bub., Fungi imp. exsicc. 557. — Maculis rotundatis, elongatis, utrinque conspicuis, albidis, usque ad 6 mm. diam., confluentibus; pycnidiis plerumque epiphyllis, numerosis, congregatis, nigris, epidermide tectis dein poro lato erumpentibus, globosis v. subapplanatis, contextu brunneo pseudoparenchymatico, 90-198 μ. lat.; sporulis cirrum albidum v. flavidum efformantibus, unicellularibus v. 1-5- sed plerumque 1-2-septatis, bacillaribus, utrinque angustatis v. late acicularibus, rectis, v. contortis, 19-62 × 2-3, hyalinis; sporophoris ovoideis, conoideis, piriformibus, hyalinis, 7,5-15 × 3-7.

Hab. in foliis vivis Sisymbrii orientalis et altissimi prope Belgrad et Pirot Serbia.

5. Septoria repanda Bubák, Ann. Mycol. IV (1906) p. 116. — Ma-7267 culis albidis vel flavidis, rotundatis v. irregularibus, indistinctis, demum arescentibus; pycnidiis epiphyllis, crebris, 80-120 μ. latis, subcompressis, nigris, prominentibus, contextu crasso nigro-brunneo, poro irregulari apertis; sporulis cylindraceis, raro rectis, plerumque curvulis quandoque plus minusve fortiter et circulariter arcuatis, apice angustatis, ibique obtusatis, 24-52 (raro usque ad 62) × 2,5-4,5, continuis v. 1-3-septatis, hyalinis, non guttulatis.

Hab. in foliis Erysimi repandi prope Laun Bohemia (Houska). — A Sept. Erysimi Niessl sporulis majoribus, pycnidiis superficialibus crebris diversa.

6. Septoria Cardamines-resedifoliæ Heim., in Verh. z. bot. Ges. Wien 7268 LVII (1907) p. 456. — Pycnidiis in areis minutis, dein ampliatis foliorum, initio brunneis dein dealbatis sitis, modo sparsis, modo proximatis, amphigenis, globulosis, 100-120 μ. diam., subinde depressis, ostiolo latiusculo, rotundo, prominulo, nigro-brunneo pertusis; sporulis filiformibus, curvulis vel subrectis, 18-28 × 1-1,5, plerumque 22-24 μ. longis, continuis v. medio obsolete 1-septatis, non v. vix guttulatis.

Hab. in foliis Cardamines resedifoliæ, Steinwend, alt. 1500 m. Isargo (Eisacktal) Tiroliæ cisalpinæ. — Affinis Septoriæ Cardamines-trifoliæ.

7. Septoria Cardamines-trifoliæ v. Höhn., Annal. naturhist. Hofmus. 7269

Wien Bd. XXIV, p. 277 (1911) et Crypt. exs. n. 1736. — Maculis subrotundis, albidis, fusco-marginatis, amphigenis, paucis subinde numerosis, 1-2 mm. diametro; pycnidiis epiphyllis, dispersis vel interdum dense aggregatis, plerumque numero 1-3, interdum 20-30 in quaque macula, nigro-brunneis v. subnigris, 50-100  $\mu$ . d., ostiolo plano, fusco-marginato, 20-30  $\mu$ . lato præditis, contextu pallido vel subfusco, tenui, cellulis parvis composito; sporulis hyalinis, eseptatis, plerumque subrectis, uno apice acutis, altero apice obtusis, ca. 25-32  $\times$  1-1,5 metientibus.

Hab. ad folia persistentia Cardamines trifoliæ prope Rekawinkel, Austriæ (F. v. Höhnel). — Peraffinis Sept. Cardamines-resedifoliæ Heim.

Septoria capsellicola Hollós, Ann. Mus. Nat. Hung. VIII (1910) 7270
 p. 4. — Pycnidiis epiphyllis, gregariis, lenticularibus, atris, poro pertusis, 40-50 μ. diam., contextu celluloso; sporulis acicularibus, rectis v. curvulis, continuis, hyalinis, 24-36 × 1,5-2.

Hab. in foliis exsiccatis Capsellæ Bursæ-pastoris prope Kecskemét Hungariæ. — A Septoria Capsellæ sporulis minoribus diversa.

9. Septoria Limnanthemi Voglino, Atti R. Acc. Sc. Torino XLIII 7271 (1907-1908) p. 95 (249). — Maculis distinctis, plerumque numerosis, epiphyllis, totam folii substantiam penetrantibus, inde amphigenis, circularibus, raro confluentibus et tunc subellipticis, sinuosis, umbrinis, vulgo flavo-virenti-marginatis, 2-3-4 usque ad 7 mm. latis; pycnidiis semper epiphyllis, erumpentibus, minutis, 120-140 μ. latis, lenticularibus, nigris; sporulis fusoideo- v. clavato-oblongis, acutis, rectis v. lenissime curvulis, obsolete 4-6-septatis, hyalinis, 36-38-48 × 1,5-2,5.

Hab. in foliis vivis Lymnanthemi nymphoidis in lacubus Candia, Viverone Pedemontii Italiæ bor.

10. Septoria polygalicola Hollós, Ann. Mus. Nat. Hung. VIII (1910) 7272 p. 5. — Maculis totum folium occupantibus, ochraceis; pycnidiis hypophyllis, sparsis, lenticularibus, atris, poro pertusis, 90-120 μ. diam., contextu celluloso; sporulis acicularibus, rectis v. curvulis, continuis, hyalinis, 24-32 × 1,5.

Hab. in foliis languidis Polygalæ comosæ prope Kecskemét Hungariæ.

Septoria Jujubæ Trav. et Spessa, Bol. Soc. Brot. (1910) p. 183, 7278
 III, f. 19. — Pycnidiis plerumque hypophyllis et dense gregariis, maculas minutas, irregulares, angulosas, fuligineo-ochraceas

efformantibus, rarius subsparsis, globosis, poro minuto distincto pertusis, 80-120  $\mu$ . diam., fuligineo-melleis; sporulis longe bacillaribus, continuis vel interdum spurie 1-septatis, rectis vel leniter curvulis,  $14-17 \approx 1^{1}/_{2}$ .

Hab. in foliis languidis Zizyphi Jujubæ in Horto botanico conimbricensi Lusitania (A. Moller). — A Septoria Zizyphi præcipue maculis minoribus et minus distinctis, pycnidiis gregariis et hypophyllis satis differt.

Septoria Hyperici Desm. — Syll. III, p. 515 — var. Hyperici-7274 quadranguli C. Mass., Atti Acc. Sc. Med. e Nat. Ferrara, LXXXIV (1910) Extr. p. 10. — Maculis rubiginoso-subfulvis, luteo-marginatis; sporulis vulgo 30-40 μ. long.

Hab. in foliis Hyperici quadranguli, Mt. Turcato Veronæ Ital. bor. — Var. Burseri R. Maire, Bull. Soc. Bot. de Fr. t. LV (1908) p. CLXIV. — Epiphylla, maculis rotundatis v. irregularibus, brunneis, purpureo-marginatis; pycnidiis minutis, 60-150 μ. diam., atris; sporulis linearibus, rectis v. flexuosis, 15-32 × 2, 1-2-septatis. — In foliis vivis Hyperici Burseri, Cauteret in Pyrenæis Galliæ (Mouillard).

13. Septoria Daniloi Bubák, Bull. Herb. Boiss. 2. ser., VI (1906) 7275 p. 478. — Maculis rotundatis, elongatis v. irregularibus, parvis, 2-3 mm. latis, brunneo-alutaceis, indistinctis, plerumque linea prominenti marginatis, parce v. multi-gregariis, quandoque late distributis; pycnidiis epiphyllis, 1-10-irregulariter gregariis, subepidermicis, 90-120 μ. latis, 110-150 μ. altis, nigris, demum erumpentibus, contextu obscure brunneo præditis; sporulis filiformibus 50-70 ≈ 2,2, rectis v. curvulis transverse 3-4-septatis, utrinque sensim angustatis, obtusatis.

Hab. in Geranio lucido prope Kosciele, Rijeka et Ulcinij Montenegro.

14. Septoria drimydicola Spegazz., Fungi Paulist., Rev. Mus. La 7276 Plata t. XV, p. 37 (1908). — Maculis amphigenis irregulariter orbicularibus, pulvinato-prominulis suborbicularibus 3-5 mm. d., eximie determinatis fuscescentibus; pycnidiis centro macularum laxe gregariis innatis, lenticularibus 65-80 μ. diam., tenuibus, membranaceis, contextu denso subimperspicuo olivaceo; sporulis arcuatis v. sigmoideis utrinque acutiusculis 25 × 1, continuis, hyalinis.

Hab. ad folia languida Drimydis cujusdam in hortis Sao Paulo Brasilia (USTERI).

Septoria Blumenbachiæ Speg., Myc. Argent. V, p. 380, in Anal. 7277
 Syll. Fung. XXII (V-1913)

Mus. Nac. Buenos Aires XX (1910). — Maculis difformibus sub-indeterminatis, 5-15 mm. diam., pallescenti-arescentibus; pycnidiis laxe gregariis innatis, nigris, lenticularibus, 75-90 μ. diam., ostiolo minuto perforatis, contextu tenui imperspicuo fuscidulo; sporulis acicularibus, rectis v. leniter arcuatis, 45-50 × 1,5-2, sæpius triseptatis, hyalinis.

Hab. ad folia viva Blumenbachiæ urentis in silvis prope

Bompland Argentina Amer. austr. (P. Jörgensen).

16. Septoria Vandasii Bubák, Ann. Mycol. IV (1906) p. 117. — Py-7278 cnidiis numerosis, ramos, folia, bracteas, calicesque nigrefactos late obtegentibus, 55-120 µ. diam., globosis, poro irregulari lato apertis, contextu minute parenchymatico, obscure brunneo, basi pallidiori; sporulis filiformibus, plus v. minus incurvatis, 22-31 × 2, bilocularibus, raro unilocularibus, apice angustatis; sporophoris papilliformibus hyalinis v. brunneolis.

Hab. in Alsine glomerata, Kale Rhodope Bulgaria (leg.

FORMANEK, misit VANDAS).

17. Septoria Velenovskyi Bubák, Bull. Herb. Boiss., 2 sér., VI (1906) 7279 p. 479. — Maculis minutis, rotundatis, 1 mm. circ. long., flavo-alutaceis; pycnidiis globosis, 70-100 μ. latis, brunneolis, margine obscurioribus, contextu grosse parenchymatico, subradiato; sporulis cylindraceis, 20-24 × 3, rectis v. curvulis, apice rotundato-angustatis, medio transverse uniseptatis, non constrictis, hyalinis.

Hab. in foliis Saginæ tenuifoliæ var. Velenovskyi pr.

Virbazar Montenegro.

18. Septoria Commersoniana Speg., Myc. Argent. V, p. 381, in Anal. 7280 Mus. Nac. Buenos Aires XX (1910). — Foliis infectis totis pallescentibus; pycnidiis innatis, laxe gregariis lenticularibus, 50-80 μ. diam., nigris, membranaceis, ostiolo subfimbriatulo perforatis, contextu minute parenchymatico, fusco-olivaceo, parum distincto; sporulis bacillaribus utrinque obtusiuscule rotundatis 25-32 × 3, ad medium sæpius uniseptatis, hyalinis.

Hab. ad folia languida Cerastii humifusi in pratis uliginosis Lezama prov. Buenos Aires Argentina Amer. austr.

19. Septoria pusilla (Trail) Bubák, Beitr. z. Pilzfl. Ung. in Növé-7281 nytani Közlemények (1907) Heft 4, Extr. p. 35. — Ita vocanda est, sec. Bubák l. c., Septoria Lychnidis Desm. var. pusilla Trail — Syll. X, p. 364 — quia specifice distinguenda.

20. Septoria Silenes-nutantis C. Mass. ap. Sacc., in Ann. Mycol. IX 7282 (1911) p. 252. — Maculis subrotundis albido-luteolis, 2-3 mm. d.,

raro confluentibus, zona subviolacea cinctis; pycnidiis epiphyllis, subinde etiam amphigenis, minutissimis, 30-50  $\mu$ . diam., membranaceis, subachrois (semper?); sporulis acicularibus tenuissimis, continuis, hyalinis, 60-70  $\approx$  1,5-2.

Hab. in foliis languidis Silenes nutantis, socio Uromycete Silenes, in Selva di Progno agri Veronensis, Ital. bor. — Septoriæ Doehlii Syd. affinis.

21. Septoria Dominii Bubák, Bull. Herb. Boiss., 2 sér., VI (1906) 7288 p. 477. — Maculis elevatis, rotundatis, parvis, sæpe 1 mm. tantum latis, pallide flavo-ochraceis v. flavidis, linea angusta limitatis et areola flavidula cinctis; pycnidiis epiphyllis plus v. minus aggregatis quandoque arcte confertis, parvis, 45-90 μ. diam., globosis, subdepressis, nigris, contextu grosse parenchymatico, flavido præditis, maturis conoideo prominentibus; sporulis rectis, curvulis v. contortis, 20-31 × 2,5-3, transverse uniseptatis, hyalinis.

Hab. in foliis vivis Silenes inflatæ var. latifoliæ prope Ulcinj Montenegro.

22. Septoria Jaapii Bres. apud Jaap, Ann. Mycol. III (1905) p. 400. 7284
 — Pycnidiis numerosis in maculis magnis, albido-flavidis, plerumque brunneo-marginatis insidentibus; sporulis 1-3-locularibus, 33-60 × 3-4, minute guttulatis.

Hab. in foliis Melandrii albi, prope Warnemünde Mecklenburg Germaniæ.

23. Septoria Melandrii Pass. — Syll. III, p. 517. — var. andrijevi- 7285 censis Bubák, Bull. Herb. Boiss., 2 sér., VI (1906) pag. 478. — Sporulis 60-82 × 2, transverse 1-5-septatis, curvatis, ceterum ut in typo.

Hab. in foliis vivis Melandrii nemoralis prope Andrijevica Montenegro.

24. Septoria Trapæ-natantis Wisniewski in Kosmos (1910) p. 78-79. 7286 — Maculis epiphyllis subcircularibus, usque ad 0,5 cm. latis, zona atro-purpurea cinctis; pycnidiis in centro maculæ sitis, in stratu folii paliformi innatis; sporulis filiformibus.

Hab. in foliis rosulæ exterioribus Trapæ in stagno quodam pr. Nowa Grobla in Galicia occidentali.

25. Septoria Thomasiana Saccardo, Fungi aliquot africani, Bol. Soc. 7287 Broteriana XXI (1904-1905) pag. 7. — Maculis subcircularibus, amphigenis, sed epiphyllis distinctioribus, 2-3 mm. diam., isabellinis, angustissime fusco-purpureo-marginatis; pycnidiis in quaque macula numerosis, gregariis, lenticularibus 60-80 μ. diam., poro

minuto rotundo pertusis; contextu celluloso rufo-fuligineo; sporulis bacillaribus, curvulis, utrinque rotundatis,  $33-36 \times 2$ , obsolete multi-nucleatis, hyalinis.

Hab. in foliis languidis Jussieuæ acuminatæ, Caixao Grande S. Thomé, Africa (A. Moller). — A Septoria Jussieuæ differt pycnidiis in quaque macula numerosis, maculæ forma et colore, etc.

26. Septoria jussieuicola Spegazz., Myc. Argent. V, p. 383, in Anal. 7288 Mus. Nac. Buenos Aires XX (1910). — Maculis rufescentibus subdeterminatis repando-orbicularibus, 2-5 mm. diam., areola livescente cinctis, amphigenis; pycnidiis epiphyllis, parenchymate innatis, epidermide tectis, sublenticularibus, 75-80 μ. diam., tenuissime membranaceis parenchymaticis, ostiolo rotundo parvulo pertusis; sporulis acicularibus, non v. lenissime curvulis, 35-50 × 1,5, hyalinis, continuis.

Hab. ad folia languida Jussieuæ montevidensis in paludosis prope La Plata Argentina Amer austr. — An satis diversa a præcedente?

27. Septoria euphorbicola Hollós, Ann. Mus. Nat. Hungar. VIII 7289 (1910) p. 5. — Maculis amphigenis, rotundatis, minutis, 1 mm. diam., olivaceo-brunneis, centro demum expallentibus, in pagina superiore rubro-vinoso-cinctis; pycnidiis epiphyllis, in centro macularum solitariis, prominulis, poro pertusis, 140-160 μ. diam., contextu celluloso; sporulis cylindraceis, utrinque attenuatis et rotundatis, leniter curvulis, 3-septatis, hyalinis, 16-20 × 2-2,5.

Hab. in foliis vivis Euphorbiæ proceræ prope Nagy-Körös Hungariæ.

28. Septoria Hariotiana Sace. Notæ Myc. VIII, Ann. Myc. IV (1906) 7290 p. 493, tab. X, fig. 10. — Maculis amphigenis, dense gregariis, eximie circularibus, centro ex isabellino albidis, angusteque atropurpureo-marginatis, totis 1 mm. diam.; pycnidis in quaque macula singulis v. raro 2-4, lenticularibus, atris, 120–125 μ. diam., poro minuto pertusis; sporulis bacillaribus, utrinque obtusulis, rectis curvulisve, 3-4-septatis, non constrictis, 30-32 × 3, hyalinis.

Hab. in foliis vivis Euphorbiæ palustris, Méry-s-Seine Galliæ (P. Hariot). — A ceteris speciebus euphorbicolis maculis sporulisque diversa et vere pulchella.

29. Septoria sedicola Peck, New York St. Mus. Bull. n. 139 (1909) 7291 p. 29. — Maculis orbicularibus, 4-8 cm. latis, vulgo in quoque folio una v. duabus, primum definitis, depressis, in partibus folii circumdantibus, absque decoloratione, deinde supra convexis, infra con-

cavis, foliis flavescentibus, tenuibus, flaccidis, moribundis; pycnidiis numerosis, minutis, amphigenis, nigris; sporulis filiformibus, rectis, curvatis v. flexuosis, enucleatis,  $20-40 \times 1-1,5$ .

Hab. in foliis vivis Sedi purpurei (Sedum telephium), Fine St. Lawrence co. Amer. bor. — Septorice Sedi proxima sed pycnidiis amphigenis, sporulis enucleatis praecipue recedit.

- 30. Septoria Fici indicæ Voglino Syll. XVIII, p. 378. Huc 7292 ducenda est Septoria Opuntiæ Voglino, Atti R. Acc. Sc. Torino XLIII (1907-1908) p. 95 (249).
- 31. Septoria grossularicola C. Mass., Ann. Myc. III (1905) p. 168. 7298 Maculis amphigenis, irregularibus, primo pallide cinnamomeis, dein areolatis, areolis parvis sepe confluentibus, albicantibus et linea fusca limitatis; pycnidiis epiphyllis, prominulis, nigris, minutis, punctiformibus, poro manifesto perviis; sporulis subfiliformibus, varie inflexis, vermicularibus (tylenchoideis), hyalinis, continuis, 35-50 × 2.

Hab. ad folia Ribis Grossulariæ supra Badia Calavena valle dei Rugolotti, prov. Verona Ital. bor. — A Sept. aurea, S. Grossulariæ et S. Ribis differt tam forma et colore macularum, quam magnitudine et characteribus sporularum.

32. Septoria dissolubilis Aderh., in Arb. Biol. Anst. f. Land- u. <sup>7294</sup> Forstwirtschaft IV (1905) pag. 461, c. ic. — Pycnidiis in greges 3-5 mm. diam. dense dispositis, subepidermicis, erumpentibus, globosis, 70-100 μ. diam., atris; sporophoris nullis; sporulis baculiformibus, fusoideis, plerumque lenissime curvulis, 1- vel rarius 2-cellularibus, hyalinis, 10-16 × 2-3.

Hab. in foliis emortuis Pruni Cerasi, Proskau Silesiæ.

33. Septoria Eriobotryæ Maffei, Contr. Mic. Ligust., Atti R. Ist. Bot. 7295 Pavia, ser. II, v. XII, Extr. p. 12, t. f. 9-11 (1907). — Maculis irregularibus, nigrescentibus; pycnidiis amphigenis, 120-150 μ., gregariis, punctiformibus, immersis, prominulis, atris; ostiolo crateriformi; sporulis bacillaribus, cylindricis, numerosis, rectis v. leniter curvulis, 1-septatis, spurie bi-triseptatis, guttulatis, hyalinis, 14-22 × 1,5-2.

Hab. in foliis languentibus Eriobotryæ japonicæ, Genova Italiæ bor.

34. Septoria Rosarum West. — Syll. III, p. 486 — var. leptosperma 7296
Spegazz., Fungi Paulist., Rev. Mus. La Plata t. XV, p. 38 (1908).
— Maculis parvulis subindeterminatis candidis areola atro-violascente cinctis; pycnidiis epidermide nigrificata tectis adnatisque,

60-90  $\mu$ . diam. nucleo hyalino farctis; sporulis curvulis v. flexuosulis, continuis, utrinque acutiusculis, 30-50  $\approx$  1, hyalinis.

Hab. ad folia Rosarum in hortis Quedas Sao Paulo Brasilia

(USTERI).

35. Septoria Rubi West. — Syll. III, p. 486 — var. asiatica Bubák 7297 in Handel-Mazzetti, Bot. Reise Pont. Randgeb. in Ann. Naturhist. Hofmus. Wien XXIII (1909) p. 105. — A typo et a var. saxatili differt maculis forma et colore diversis, pycnidiis hypophyllis, sporulis latioribus nempe 30-60 × 2-2,5.

Hab. in foliis vivis Rubi sp. in montibus ponticis Anatoliæ

(Blumencron).

36. Septoria corcontica Kab. et Bub., Myc. Beitr. Hedw. Bd. XLIV 7298 (1907) p. 294. — Maculis epiphyllis, sparsis, rotundato-angulosis v. inter nervos elongatis, primum sordide viridibus, dein alutaceis, demum arescendo griseo-cinereis, brunneo-purpureo-marginatis v. non, quandoque late confluentibus; pycnidiis epiphyllis, regulariter distributis, nigris, immersis, dein apice erumpentibus, globosis, 60-100 μ. diam., diu clausis, demum late apertis, contextu parenchymatico obscure brunneo; sporulis filiformibus, curvis, raro rectis, apice angustatis rotundatisque, 20-30 × 1,5-2, unilocularibus v. hydrati chloralici ope transverse uniseptatis; sporophoris brevibus, papilliformibus.

Hab. in foliis Potentillæ procumbentis, Riesengebirge

Bohemia (KABAT).

37. Septoria Kerriæ Syd., Ann. Mycol. VII (1909) p. 171. — Ma. 7299 culis amphigenis, orbicularibus, 3-5 mm. diam., pallidis; pycnidiis epiphyllis, tectis, globosis, atris, 70-100 μ. diam., late pertusis; sporulis filiformibus, rectis vel varie curvis, continuis, hyalinis 20-38 × 1.

Hab. in foliis Kerriæ japonicæ, Oji Tokyo, Japonia.

38. Septoria Rhodotypi Hollós, Növényt. Közlemén. VI (1907) Extr. 7800 p. 5. — Maculis irregularibus, rufescentibus; pycnidiis amphigenis, sparsis, lenticularibus, brunneis, poro pertusis, 60 μ. diam., contextu parenchymatico; sporulis filiformibus, flexuosis, continuis, hyalinis, 20-22 × 1-1,5.

Hab. in foliis vivis Rhodotypi kerrioidis, Kecskemét Hungariæ.

Septoria Henryana Trav. in Bull. n. 8 Société Flore Valdôtaine, 7801
 p. 28 extr. (1912). — Maculis irregulariter circularibus, 2-5 mm. diam., in epiphyllo magis distinctis, centro albido-griseis, margine

griseo-ochraceis, linea atro-purpurea elevatula cinctis et sæpe, maculis majoribus, lineis 2-3 atro-purpureis concentrice notatis; pycnidiis epiphyllis, sat copiosis, in parte macularum externa sitis, pallide fuscis dein nigris, immerso-prominulis, globulosis, 180-220 μ. diam., ostiolo amplissimo circulari, usque ad 100 μ. lato, excipulo tenui, dilute melleo, circa ostiolum saturatiore, castaneo-fusco, sporulis in cirros breves et crassos, roseolos eructatis, filiformibus, rectis vel varie sinuosis, utrinque obtusis, majusculis, 120- $160 \approx 3-4$ , hyalinis, maturis 7-13-septatis.

Hab. in foliis vivis Anthyllidis Vulnerariæ pr. Glacier, Valpelline, Valle d'Aosta, Ital, bor. — Pulcherrima et perdistincta species, cum Sept. Anthyllidis nequaquam comparanda.

40. Septoria Serebrianikowii Sacc., in Ann. Myc. (1911) p. 252 II. - 7802 Pycnidiis in foliis uniformiter arescendo flavicantibus hinc inde aggregatis v. subsparsis, pro more hypophyllis, globulosis, majusculis, prominulis, firmulis, 200 p. diam., poro pertusis; sporulis bacillaribus sursum paullo attenuatis, medio 1-septatis, non constrictis, 40-45 × 2,5-3, hvalinis, rectis v. lenissime curvis.

Hab. in foliis Astragali Onobrychidis languidis in prov. Ufa Rossiæ (Serebrianikow). - A Sept. astragalicola statim dignoscitur pycnidiis majoribus, sporulis angustioribus, 1-septatis.

41. Septoria podgoricensis Bubák, Bull. Herb. Boiss., 2 sér., VI (1906) 7303 p. 479. — Pvenidiis foliicolis v. caulicolis in areis flavo-alutaceis late distributis, plerumque epiphyllis, rotundatis vel subellipticis, globosis, 90-170 µ. latis, subepidermicis, primum albidis, dein margine brunneis, minute ostiolatis et cirrum ostendentibus, dein late apertis, contextu flavo-brunneo supra obscuriori; sporulis longe cylindraceis, rectis v. curvulis, 20-42 × 2,5-3, utrinque plerumque rotundatis v. infra angustatis, transverse uniseptatis, contextu granuloso: sporophoris usque ad 20 µ, long., rectis v. curvulis, basi fasciculato-cæspitosis sporulas sæpe lateraliter gerentibus.

Hab. in foliis caulibusque vivis Lathyri annui prope Podgorica Montenegro. — Sept. silvestri affinis a qua differt sporulis bilocularibus, brevioribus.

42. Septoria Phaseoli Maubl., Bull. Soc. Mycol. de Fr. XXII (1906) 7304 p. 66. - Maculis amphigenis, viridulis, parum conspicuis, irregularibus, non vel vix marginatis; pycnidiis amphigenis, fuscis, erumpentibus, tunica tenui, globulosis, minutis, 60-100 μ. diam.; poro prominulo, late aperto; sporulis filiformibus, leniter curvulis, 1-2-septatis, eguttulatis, 15-30 × 1,5, in cirros albos protrusis.

Hab. in foliis Phaseoli sp., in horto bot. Sao Paulo Brasiliæ (Puttemans).

43. Septoria Vignæ P. Henn., in Fl. du Bas- et Moy. Congo, Ann. 7305 Mus. du Congo v. II, fasc. II (1908) p. 102. — Maculis rotundatis exarido-pallidis, fusco-cingulatis; pycnidiis gregariis, lenticularibus atris, poro pertusis, 50-70 μ. diam.; sporulis filiformibus, flexuosis, obtusiusculis, 3-septatis, 25-35 × 1.

Hab. in foliis Vignæ sp., Dembo Congo Africæ (Vandersst).

44. Septoria Cytisi Desm. — Syll. III, pag. 485 — var. Genistæ 7306 (Bäumler?) Sace. Dom. in Atti Soc. Ven. Trent. (1897) pag. 23, t. 5, f. 7 (extr.). — Maculis ovatis, albis, centro vero margineque fuseis; pycnidiis punctiformibus, 150-180 μ. diam., poro pertusis; sporulis bacillaribus sæpe leviter tortuosis, 4-6-septatis, hyalinis, 40-45 ≈ 3-3,5.

Hab. in foliis Genistæ tinctoriæ in M. Sytno Hungariæ. (Kmet).

45. Septoria Erythrophlæi P. Henn., Engl. Jahrb. XXXVIII (1905) 7307 p. 117. — Maculis angulato-rotundatis dein effusis, pallide exaridis, zona rufo-brunnea circumdatis; pycnidiis epiphyllis gregarie sparsis, subhemisphærico- v. lenticulari-erumpentibus, punctiformibus, atro-membranaceis, poro pertusis, c. 80-120 μ. diam.; sporulis filiformibus, flexuosis, hyalinis, eguttulatis, 80-100 × 1-1,5.

Hab. in foliis Erythrophlæi guineensis, Dar-el-Salâm Africæ or. trop. (Holtz).

46. Septoria Kennedyæ Trav. et Spessa, Bol. Soc. Brot. XXV (1910) 7308 p. 183, t. III, f. 24. — Maculis minutis, irregularibus, in pagina superiore foliorum ochraceis, in inferiore griseis; pycnidiis hypophyllis in quaque macula gregariis, erumpentibus, nigris, sphæroideis, 80-100 μ. diam., poro circulari pertusis, contextu minute pseudoparenchymatico melleo; sporulis cylindraceo-bacillaribus, utrinque obtusatis, rectis vel parum curavtis, 14-20 × 1¹/₂-2.

Hab. in foliis exsiccatis Kennedyæsp. in horto botanico conimbricensi Lusitaniæ (A. Moller). — Sept. Hardenbergiæ Sacc. affinis.

47. Septoria Bonanseana Sacc., in Ann. Mycol. X (1912) p. 312. — 7309 — Maculis numerosis, amphigenis, subcircularibus, 2-3 mm. diam., albidis, ochraceo-marginatis; pycnidiis punctiformibus, epidermide velatis, 80-100 μ. diam., poro irregulari pertusis, contextu laxe celluloso, dilute ochraceo; sporulis bacillaribus leniter curvis, utrinque obtusis et fere truncatis, apicibus interdum mucillo præditis,

hyalinis, plerumque 2-septatis v. granulosis, non constrictis,  $30-38 \times 2.7-3$ .

Hvb. in foliis Erythrine breviflore, Oaxaca Mexico (Communic. Doct. Bonansea).

48. Septoria bupleurina Gen. de Lamarl., Rev. de Bot. (1894) p. 3, 7810 f. 36-37 (extr.). — Maculis centro nigris, demum brunneis, subrotundis v. angulosis, zone virescenti anguste cinctis et circumcirca halone indeterminato, lato, purpureo-brunneo circumdatis; pycnidiis exiguis 100 μ. d., aggregatis, sat numerosis, poro latiusculo pertusis, contextu pallide brunneo, circa porum nigricante; sporulis filiformi-bacillaribus, rectiusculis, utrinque obtusulis, 32-43 × 2,2, hyalinis, continuis, eguttulatis.

Hab. in foliis vivis Bupleuri longifolii culti pr. laboratorium biologiæ vegetalis, Fontainebleau Galliæ.

49. Septoria hydrocotylicola Speg., Fungi Paul., Rev. Mus. La Plata 7811 t. XV, p. 38 (1908). — Maculis amphigenis repando-orbicularibus 0,5-4 mm. diam., testaceis, nitidulis, sæpe confluentibus, areola latiuscula atro-violascente cinctis; pycnidiis lenticularibus 60-70 μ. diam., sæpius epiphyllis, membranaceis, contextu parenchymatico fuligineo; sporulis rectis v. flexuosulis utrinque acutiusculis, 40-50 × 1, obsolete 3-septatis, hyalinis.

Hab. ad folia languida Hydrocotylis cujusdam circa Sao Paulo Brasilia (USTERI). — Sept. Spegazzinii Sacc. affinis sed maculis areola latissima atro-violascente cinctis distincta.

50. Septoria phlyctæniformis Bub. et Kab. Sechst. Beitr. Pilz. Tir., 7812 Ann. Myc. V (1907) p. 43. — Maculis foliicolis amphigenis, sparsis, rotundatis v. angulosis, 1-5 mm. diam., supra parum depressis, ex alutaceo pallide brunneis, nervis limitatis, sæpe brunneo marginatis, quandoque confluentibus; pycnidiis epiphyllis subgregariis, immersis, epidermide tectis, siccis applanatis udis subinflatis, globosis v. subdepressis, brunneis, 150-200 μ. diam., contextu tenui parenchymatico, pallide brunneo, basi indistincto, primo poro lato dein late irregulariterque apertis et cirrum crassum gelatinosum roseolum v. flavidum ostendentibus; sporulis filiformibus, utrinque rotundatis, plerumque rectis, raro curvulis, 40-70 × 3-4, 1-3-septatis, ad septa non constrictis, loculis quandoque magnitudine dissimilibus, hyalinis; sporophoris cylindraceis, apice subinflatis, usque ad 20 μ. long., 3-4 μ. cr., hyalinis.

Hab. in foliis vivis Laserpitii Gaudinii, pr. Madonna

di Campiglio in ditione Tridentina. — Socium quandoque Cylin-drosporium Laserpitii.

51. Septoria heracleicola Kab. et Bub., Sechst. Beitr. Pilzfl. Tir., Ann. 7313 Myc. V (1907) pag. 43. — Maculis foliicolis utrinque visibilibus, sparsis, parvis, 1-2 mm. latis, rotundato-subpolygoniis, brunneis demum arescentibns et e subochraceo sordide albis, theobromino-marginatis, sæpe confluentibus; pycnidiis paucis epiphyllis, globosis v. parum depressis, 60-80 μ. diam., e brunneo obscure brunneis, epidermide tectis, poro minuto rotundato apertis v. irregulariter laceratis, contextu tenui parenchymatico pallide brunneo; sporulis filiformibus, rectis v. curvulis, utrinque angustatis, 20-40 × 1,5-2, unilocularibus, hyalinis.

Hab. in foliis vivis Heraclei sibirici prope Pinzolo in agro Tridentino.

52. Septoria Heraclei-palmati R. Maire, Bull. trim. Soc. Myc. de 7314 France, vol. XXI (1905) p. 167 cum icon. — Maculis primo flavis dein brunneis, confluentibus; pycnidiis præcipue hypophyllis, nigris, confluentibus, rarius sparsis, subglobosis, pertusis, biformibus; aliis (pycnidiis) sporas vermiculares, hyalinas, 1-septatas, verstice acuto, antice obtusas, curvatas, 50-70 × 3; aliis (micropycnidiis) sporulas cylindraceo-oblongatis, hyalinas, continuas, 3-6 × 1-1,5, gignentibus.

Hab. ad folia languida Heraclei palmati in pascuis subalpinis mt. Ghiona Doridis. — Verisimiliter Phyllachoræ cujusdam stat. pycnid. et micropycnidicus.

53. Septoria Podagrariæ Lasch — Syll. III p, 529 — var. Pimpi- 7815 nellæ-magnæ Kab et Bub. V. Beitr. Pilz. Tir. in Ber. Naturw.- med. Ver. Innab. XXX Jahrg. (1905-1906) Extr. p. 11. — Pycnidiis epiphyllis, immersis, utrinque distincte prominentibus, sparsis, raro confluentibus 140-250 μ. latis, globosis v. subdepressis, brunneis, contextu brunneo grosse parenchymatico; sporulis filiformibus 50-85 × 3-4,5, curvis, raro subrectis, apice angustatis obtusisque, unilocularibus v. uni-septatis, hyalinis.

Hab. in foliis vivis Pimpinella magnæ prope Sanct Johann Villnösstal (Funés) Tirolia cisalp.

54. Septoria Peucedani Hollós, Ann. Mus Nat. Hung. V (1907) 7316 p. 51. — Maculis amphigenis, numerosis, minutis, subcircularibus, pallide ochraceis fusco-marginatis; pycnidiis epiphyllis, dense gregariis, lenticularibus, fuscis, medio pertusis, demum late apertis, 100-120 μ diam., contextu parenchymatico; sporulis filiformi-

bus, plerumque curvulis, continuis, granulosis, hyalinis,  $32-44 \times 1-1,5$ .

Hab. in foliis vivis Peucedani Cervariæ prope Kecskemét Hungariæ. — A Sept. Oreoselini (Lasch) differt pycnidiis et sporulis majoribus.

55. Septoria gallica Sacc. Notæ myc. VIII, Ann. Myc. v. IV (1906) 7317 p. 493, tab. X, fig. 11. — Maculis parvis, sæpius marginalibus, albidis, amphigenis, 2-3 mm. long., non discolori-marginatis; pycnidiis punctiformibus, lenticularibus, copiosius epiphyllis, dense gregariis, 100-120 μ. diam., poro impresso pertusis, distincte parenchymaticis, brunneis; sporulis bacillaribus, sæpius curvulis, utrinque obtusulis, dense multi-guttulatis, 30-40 × 1, hyalinis.

Hab. in foliis vivis v. languidis Peucedani gallici, Marly Galliæ (Ludwig, comm. P. Hariot). — Affinis S. Oreoselini sed maculæ non discolori-marginatæ et sporulæ majores.

56. Septoria coniicola Hollós, Ann. Mus. Nat. Hung. IV (1906) 7318 p. 346. — Maculis nullis; pycnidiis amphigenis, sparsis, tectis, lenticularibus, brunneis, poro pertusis, 70-100  $\mu$ . diam., contextu parenchymatico; sporulis filiformibus, flexuosis, continuis, hyalinis,  $40\text{-}60 \approx 1,5\text{-}2.$ 

Hab. in foliis languidis Conii maculati, Kecskemét Hungariæ. — A Sept. Conii Syd. differt pycnidiis et sporulis majoribus.

57. Septoria Petroselini Desm. var. Apii Br. et Cav. — Syll. III, 7819
p. 530 et XIV, p. 972 — forma emaculata Sacc. Ann. Mycol. VI (1908) p. 559. — Maculis peculiaribus nullis.

Hab. in foliis Apii graveolentis culti, prope Parisios (P. Hariot). — Folia æqualiter flavicantia, sed maculæ candicantes nullæ.

58. Septoria cumulata Syd., Ann. Mycol. VI (1908) p. 530. — Pyc- 7320 nidiis amphigenis, maculis nullis v. indistinctis insidentibus, sparsis v. maculiformiter aut stromatice aggregatis, innatis, subglobosis, atris, pertusis, c. 120-200 μ. diam.; sporulis cylindraceis, curvatis, distincte uniseptatis, utrinque obtusis, hyalino-chlorinis 35-65 × 3-4.

Hab. in foliis Malabailæ porphyrodisci, in monte Elwend Persiæ occ. (PICHLER).

59. Septoria Seseli Hollós, Ann. Mus. Nat. Hungar. VIII (1910) 7821
 p. 6. — Pycnidiis amphigenis, sparsis, epidermide velatis, subsphæricis, atris, poro pertusis, 80-100 μ. diam., contextu celluloso;

sporulis acicularibus, rectis v. curvulis, continuis, hyalinis. 25- $35 \times 1,5-2.$ 

Hab. in foliis languidis Seseli glauci prope Kecskemét Hungariæ.

60. Septoria Asiaticæ Speg., Fungi Chilenses (1910) p. 168. — Ma- 7822 culis amphigenis repando-orbicularibus, 2-10 mm. diam., superne cinerescentibus ambitu et inferne tabacinis; pycnidiis epiphyllis innato-erumpentibus, subhemisphæricis, 75-100 µ. diam., atris, membranaceo-parenchymaticis, ostiolo parvo-pertusis; sporulis acicularibus utrinque acutis, rectis v. flexuosis, 40-60 × 1-1,5, hyalinis.

Hab. copiose in foliis vivis Centella asiatica, prope Temuco Chile Amer. austr.

61. Septoria versicolor Bubák, Ann. Mycol. IV (1906) p. 117. — 7828 Maculis amphigenis, in epiphyllo magis conspicuis, rotudatis v. subpolygonis, 3-10 mm. latis, albo-flavidis, arescentibus, zona triplici circumdatis, interna flavo-brunnea, externa purpurea, media angustiori nigra; pycnidiis epiphyllis, sparsis v. gregariis, nigris, 150-220 μ. latis, poro magno 50 μ. lato apertis, contextu parenchymatico supra obscure castaneo infra flavido; sporulis incurvatis, apice angustato-acutatis, 26-33 × 2-2,5, flavidis v. hyalinis, sparse guttulatis, non septatis; sporophoris caspitosis 6-10 × 2, flavidulis.

Hab. in foliis vetustioribus adhuc viventibus Soldanellæ montanæ prope Tábor Bohemia. - A S. Soldanellæ pycnidiis majoribus, sporulis falcatis diversa.

62. Septoria Soldanellæ Speg. — Syll. III pag. 532. — Var Pirolæ- 7824 foliæ Voglino, Ann. R. Acc. Agric. Torino v. XLIX (1907) Extr. p. 21. — A typo differt maculis griseo-ochraceis, irregularibus, linea atro-purpurea cinctis; pycnidiis epiphyllis gregariis; sporulis filiformibus 16-18 × 1.

Hab. in foliis Soldanellæ pirolæfoliæ, Ital. bor. in horto alp. «Rostania» et Helvetia in Horto alp. «Linnæa».

63. Septoria relicta Bubák, Ann. Mycol. IV (1906) p. 116. - Pyc- 7325 nidiis late sparsis, hypophyllis, raro epiphyllis, primum flavobrunneis, dein obscure brunneis, demum nigris, subdepressis, contextu laxe parenchymatico, demum irregulariter ostiolato, 100-130 μ. diam.; sporulis filiformibus rectis v. curvulis, 38-60 × 3-3,5, apice rotundatis, hyalinis, 1-3-septatis.

Hab. in foliis Galii silvatici prope Tábor Bohemia. 64. Septoria Galii-borealis P. Henn., Engl. Jahrb. XXXVII (1905) 7826

p. 163. — Maculis pallidis, atro-violaceo- v. fusco-zonatis; pycnidiis epiphyllis, sparsis, atris, lenticularibus, pertusis, 60-80  $\mu$ . cr.; sporulis filiformibus, utrinque acutis, 3-5-septatis, hyalinis, 25-45  $\approx$  2.5-3.

Hab. in foliis Galii borealis var. japonici, Nikko Japoniæ (Shirai).

65. Septoria Asperulæ-taurinæ Bubák, Beitr. Pilzfl. Hung. in Nové-7827 nytani Közlemények (1907) Heft 4 Extr. 33. — Maculis epiphyllis 1-3 in quoque folio, sordide flavo-alutaceis linea obscuriori distincte marginatis et areola flavo-alutacea lata indeterminata circumdatis, ellipticis v. elongatis, 2-3 mm. latis, 3-6 mm. long.; pycnidiis epiphyllis æque distributis, obscure brunneis, globosis, subepidermicis, primum poro brevi papilliformi prominentibus dein late apertis, contextu grosse parenchymatico brunneo; sporulis filiformibus, 45-80 × 2,5-3,5, raro rectis plerumque curvulis basi regulariter supra fortiter angustatis, transverse 2-4-septatis, hyalinis, in cirrum brevem subchlorinum productis.

Hab. in foliis vivis Asperulæ taurinæ Csernatal prope Herculefürdö Hungariæ. — A S. Asperulæ Bäuml. maculis sporulisque diversa.

66. **Septoria Rubiæ** (Pat.) Bubák et Ranojevic, Ann. Mycol. VIII 7328 (1910) p. 390. — Ita vocanda *Rhabdospora Rubiæ* Pat. — Syll. XIV p. 985. — A *Sept. Galiorum* Ell. var. *Rubiæ* Sacc. et Scalia sporulis majoribus diversa.

67. Septoria Calycophylli Speg., Myc. Argent. V p. 381, in Anal. 7829 Mus. Nac. Buenos Aires XX (1910). — Maculis numerosis, amphigenis suborbicularibus indeterminatis, 1-7 mm. diam., lineolis tenuissimis elevatulis concentricis notatis, rufo-fulvescentibus; pycnidiis parenchymate innatis, centralibus, epiphyllis, sublenticularibus, 100-120 μ. diam., contextu parenchymatico parum distincto fuligineo, ostiolo parvulo perforatis; sporulis utrinque leniter attenuatis, linearibus, 50-75 × 2,5-3, leniter arcuatulis, hyalinis, multiguttulatis.

Hab. ad folia viva Calycophylli multiflori in silvis prope Fraile Pintado Salta Argentina Amer. austr.

68. Septoria Berkelyi Sacc. et Trav. Syll. XX p. 785, Depazea (Sep-7380 toria) maculosa Cooke in Journ. Linn. Soc. 18 (1881) p. 462 t. 18, f. 8, non Lév. — Maculis pallidis subrotundis; pyenidis sparsis, paucis, punctiformibus; sporulis fusoideo-elongatis, 20 μ. longis, sæpius 7-nucleatis, hyalinis, utrinque acutis.

Hab. in foliis Coffee arabice in America australi. — Socia adest Sphærella coffeicola, quæ verisimiliter est st. ascophorus.

69. Septoria Vogliniana Sacc. et Trott. — Septoria longispora Vo- 7881 glino, Atti R. Ac. Sc. Torino v. XLIII, (1907-1908) p. 96 (250) non Boud., Shear., Miyake. - Maculis exaridis indeterminatis, irregularibus, sæpe confluentibus, castaneis; pycnidiis epiphyllis, minutis, innato-prominulis, olivaceo-fuscis, sphæroideis, 100-130-150 µ. diam.; sporulis cylindraceis subflexuosis, utrinque rotundatis, hyalinis, distincte 5-9-septatis, 70-80-120 × 3.

Hab. in foliis Phlogis Drummondi que maxime vexantur in Pedemontio Italiæ bor.

70. Septoria Fabletiana Speg., Myc. Argent. V p. 382, in Anal. Mus. 7382 Nac. Buenos Aires XX (1910). - Maculis amphigenis orbicularibus determinatis, 2-5 mm. diam., pallescentibus, anguste purpureoareolatis; pycnidiis hypodermicis, fulvellis, globosis, 50-75 μ. diam., astomis, tenuissime membranaceis, contextu parum distincto; sporulis filiformibus vix flexuosis, utrinque acutiusculis, continuis,  $25-35 \approx 1$ , conglobatis.

Hab. ad folia viva Convolvuli Soldanellæ in dunis maritimis prope Necochea Argentina Amer. austr. (A. Fablet).

71. Septoria longispora Bondarzew, Acta Horto Petropol. XXVI 7838 (1906) p. 44 (Extr.). — Maculis minutis, rotundatis, brunneis v. griseis terminalibus, paullum sublevatis; pycnidiis (sepius singulo in centro maculæ) epiphyllis, rotundatis, 200-300 µ. diam.; sporulis filiformibus, curvatis, hinc v. utrinque acutis, 70-130 × 2,5-3. quinqueseptatis, hyalinis.

Hab, in foliis vivis Convolvuli arvensis in ditione Kursk Rossiæ.

72. Septoria Calaminthæ C. Mass. ap. Sacc. in Ann. Mycol. IX (1911) 7334 p. 252. - Maculis parvis, 2 mm. lat., raro confluentibus, ferrugineo-fuscis, non marginatis; pycnidiis hypophyllis, minutissimis, 40-60 μ. diam., globulosis, subcutaneis, ostiolo latiusculo pertusis; sporulis capillaribus, hyalinis, rectis v. curvulis, continuis, 22- $30 \approx 0.8-1$ .

Hab. in foliis Calaminthæ officinalis, Calavena in agro Veronensi. — Sept. Melissæ proxima.

73. Septoria Bornmülleri Syd. Ann. Mycol. VI (1908) p. 18. — 7335 Maculis irregularibus, sordide flavo-brunneis, tandem subinde centro pallescentibus, immarginatis, sæpe totum folium occupantibus; pycnidiis epiphyllis, in maculis vel per totum folium æque den-

siuscule dispersis, atris, lenticularibus vel globoso-lenticularibus, 150-200 µ. diam.; sporulis numerosissimis, filiformibus, utrinque rotundatis, rectis vel varie flexuosis, plerumque 1-septatis, hyalinis,  $35-55 \times 1^{1}/_{\circ}-2$ .

Hab. in foliis Nepetæ teucrifoliæ, in valle Scheheristanek montis Elburs occid. Persiæ borealis (Bornmueller). — A Sept. Nepetæ probe diversa.

74. Septoria Catariæ Bubák, Beitr. Pilzfl. Ung. in Növénytani Köz. 7836 lemények (1907) Heft 4, Extr. p. 33. — Maculis minute polygoniis, flavidis v. flavo-ochraceis, nervis limitatis, sepe areola lata griseo-viridi circumdatis, sparsis v. gregariis et tunc sæpe confluentibus; pycnidiis epiphyllis, globosis, 135-500 µ. diam. in mesophyllo immersis, pallide brunneolis, contextu pallide flavo-brunneo grosse parenchymatico, poro usque ad 150 μ. cr. demum late apertis; sporulis cylindraceis, 30-60 × 2,5-4, rectis v. raro curvulis, utrinque angustatis, transverse 1-3-septatis, hyalinis, in cirrum brevem albo-flavidulum productis.

Hab. in foliis vivis Nepetæ catariæ, Csernatal prope Herkulesfürdő Hungaria. — A S. Nepetæ omnino diversa.

75. Septoria Salviæ Pass. — Syll. III p. 540. — Var Sclareæ C. Mass. 7337 Atti Acc. Sc. Med. e Nat. Ferrara LXXXIV (1910) Extr. p. 10. - Maculis foliicolis minutis sordide albis, internerviis, angulosis; pycnidiis minutissimis 80 µ. circ. diam., epiphyllis membranaceis, fusco-rubiginosis, ostiolo latiusculo; sporulis tenuissimis, capillaribus  $50-60 \approx 1$ .

Hab. in foliis Salviæ Sclareæ pr. Avesa Veronæ Ital. bor. 7838 76. Septoria Ipirangæ Spegazz., Fungi Paulist., Rev. Mus. La Plata tab. XV (1908) p. 38. — Maculis amphigenis suborbicularibus determinatis arescenti-pellucidis 2-5 mm. diam.; pycnidiis depresso-lenticularibus 60-80 µ. diam., nervulis insidentibus latiuscule perforatoostiolatis, tenui-membranaceis, contextu parenchymatico olivaceo; sporulis utrinque acutiusculis 30 > 1, arcuatis v. uncinatis, continuis, hyalinis.

Hab. ad folia languida Bignoniaceæ cujusdam, Cambucy Ipiranga Brasilia (USTERI).

77. Septoria Chrysanthemi-rotundifolii Namyslowski, Kosmos XXXIII 7339 (1908) p. 329. — Epiphylla, maculis brunneis, circularibus v. irregularibus et confluentibus 6-10 mm. lat.; pycnidiis gregariis brunneis, sphærioideis, 80-160 µ. diam.; sporulis hyalinis, filiformibus, subclavulatis, septatis, 50-70 × 2.

Hab. in foliis Chrysanthemi rotundifolii in Monte Czarnohora Poloniæ, Galicia.

78. Septoria Chrysanthemi-indici Bub. et Kab., Myc. Beitr., Hedwi- 7840 gia Bd. XLVI (1907) p. 294. — Maculis epiphyllis, rotundatis v. raro irregularibus, usque ad 8 mm. latis, primum obscure brunneis, dein nigro-brunneis, non distincte limitatis, quandoque confluentibus et folium totum obtegentibus; pycnidiis epiphyllis, sparsis, punctiformibus, immersis, globosis, 80-140 μ. diam., nigris, poro minuto apertis, contextu parenchymatico, flavo-brunneo; sporulis filiformibus, rectis v. incurvatis, supra sensim angustatis, basi obtusatis, 55-70 (raro usque ad 90) × 2,5-3,5, multiseptatis (subinde 10 raro 15-septatis), hyalinis; sporophoris breviter papilliformibus.

Hab. in foliis vivis Chrysanthemi indici Turnau Bohemia (KABAT).

79. Septoria Tanaceti-macrophylli Bubák, Beitr. Pilzfl. Ung. in Nö- 7341 vénytani Közlemények (1907) Heft 4 Extr. p. 35. — Maculis numerosis sparsis v. gregariis, elongatis v. irregularibus, flavo-alutaceis v. sordide viridibus, centro sæpe alutaceis, extusque sordide viridibus, sæpe confluentibus; pycnidiis epiphyllis, plus v. minus confertis, brunneis, siccis discoideis, subepidermicis, globosis, 100-150 μ. diam., contextu tenui parenchymatico, parum distincto, brunneo, primum poro papilliformi erumpentibus demum late apertis; sporulis clavato-filiformibus 50-70 ≈ 2-2,5, curvis vel contortis, uno apice fortiter angustatis, hyalinis, distincte transverse 3-5-septatis.

Hab. in foliis vivis Tanaceti macrophylli, Csernatal prope Herkulesfürdö. — A S. Pyrethri Bres. et Kr. et a S. Tanaceti Niessl. diversa.

80. Septoria Linosyris Hollós, Ann. Mus. Nat. Hung. VI (1908) <sup>7342</sup> p. 532. — Maculis indeterminatis; pycnidiis amphigenis, sparsis, lenticularibus, nigris, poro pertusis, 60-90 μ. diam., contextu parenchymatico; sporulis bacillaribus, utrinque obtusatis, leviter flexuosis, continuis aut plerumque 3- nonnunquam pluri-septatis, hyalinis, 40-70 × 2-3.

Hab. in foliis Lynosyris vulgaris, Kecskemét Hungariæ.
81. Septoria Cyani Hollós, Ann. Mus. Nat. Hung. V (1907) p. 462. 7848
Maculis indeterminatis; pycnidiis amphigenis, gregariis, depressoglobosis, fuscis, poro pertusis, 70-90 μ. diam., contextu parenchy-

matico; sporulis filiformibus, flexuosis, pluriseptatis et pluri-guttulatis, hyalinis,  $30-40 \approx 2$ .

Hab. in foliis languidis Centaureæ Cyani prope Kecskemét Hungariæ. — A Sept. Centaureæ (Roum.) Sacc. et S. centaureicola Brun. diversa.

82. Septoria Aderholdi Voglino, Atti R. Acc. Sc. Torino XLIII 7344 (1907-1908) p. 95 (249); Boll. Soc. Agric. it. XIII (1908) p. 460.

— Amphigena; maculis indeterminatis, cinereo-fuscis; pycnidiis numerosis, raro vix prominulis, subglobosis, 90-120-130 μ. latis, fuliginosis; sporulis cylindraceis v. bacillari-fusoideis, utrinque obtusiusculis, attenuato-rotundatis, continuis, inde obsolete 3-septatis, hyalinis, rectis v. minime curvulis, 22-30 × 2.

Hab. in foliis vivis Centaureæ candidissimæ in hortis Pedemontii Italiæ bor.

83. Septoria czarnohorica Namysłowski, Kosmos XXXIII (1908) 7345 p. 329. — Epiphylla, maculis brunneo-ochraceis, orbiculatis v. irregularibus et confluentibus; pycnidiis parcis, nigrescentibus, sphærioideis, 60-80  $\mu$ ., raro usque ad 100  $\mu$ . diam.; sporulis hyalinis, filiformibus, 35-60  $\approx$  1.

Hab. in foliis Doronici cordifolii in Monte Czarnohora Poloniæ Galicia.

84. Septoria Selloi Speg. Myc. Argent. V p. 385 in Anal. Mus. 7346 Nac. Buenos Aires XX (1910). — Maculis subpellucidis, orbicularibus, 1-2 mm. diam., candidis, rugula prominula callosula angustissima limitatis, areola destitutis; pycnidis solitariis v. paucis gregariis, sæpius epiphyllis, primo epidermide tectis dein erumpentibus lenticularibus, 100-120 μ. diam., tenuissime membranaceis, contextu chlorino imperspicuo, ostiolo parvo rotundato perforatis; sporulis filiformibus flexuosulis sigmoideis v. arcuatulis utrinque acutiuscule rotundatis, 25-40 × 1,5-1,75, eguttulatis, hyalinis, continuis.

Hab. ad folia viva Senecionis Selloi in uliginosis prope Bompland Misiones, Argentina America austr.

85. Septoria Gaillardiæ Speg. Myc. Argent. V p. 382 in Anal. Mus. 7847 Nac. Buenos Aires XX (1910). — Maculis amphigenis cinerescentibus suborbicularibus subdeterminatis, 1-12 mm. diam., areola latissima fuscescenti cinctis; pycnidiis epiphyllis paucis, laxe gregariis, vix prominulis, subglobosis, 50-60 μ. diam., atris, membranaceis, minute ostiolatis, contextu parenchymatico parum distincto

fuligineo; sporulis subcurvulis v. leniter sigmoideis, utrinque acutiusculis,  $30-50 \approx 1,25-1,50$ , hyalinis, continuis.

Hab. ad folia languida Gaillardiæ Donianæ in sabulosis Metan prope Salta, Argentina America. austr.

86. Septoria bulgarica Bubák et Malkoff, Ann. Myc. VI (1908) 7348 p. 24. — Maculis copiosis, sparsis, amphigenis, rotundatis v. oblongis, minutis 2-4 mm. lat., sæpe elevatis, e brunneo nigricantibus, arescendo centro griseis, zona flava plus minus distincta cinctis; pycnidiis immersis, epidermide tectis, poro minuto papilliformi erumpentibus v. irregulariter detectis, globosis, 60-100 μ. diam.; contextu tenui vix 5 μ. cr. minute parenchymatico, atrobrunneo; sporulis filiformibus rectis v. valide curvatis 40-70 × 2, obsolete 1-5-septatis, utrinque sensim tenuatis, hyalinis.

Hab. in foliis vivis Cirsii appendiculati, Boikowo Bulgariæ (К. Мацкоff). — A S. Cirsii Niessl probe diversa.

87. Septoria associata Bub. et Kab., Sechst. Beit. Pilzfl. Tir. in Ann. 7349 Myc. v. V (1907) p. 42. — Pycnidiis epiphyllis gregariis, profunde immersis, epidermide tectis, dein poro minuto papilliformi erumpentibus, globosis, nigris, 50-100 μ. diam., contextu minute parenchymatico obscure brunneo; sporulis filiformibus, utrinque angustatis, 18-45 × 1-1,5, rectis v. curvulis, unilocularibus, raro indistincte transverse uniseptatis

Hab. in foliis vivis Cardui de florati prope Madonna di Campiglio prope Tridentum Ital. bor. — Socium est Fusicladium Schnablianum.

88. Septoria Stenactidis Vill in Sydow. Ann. Myc. VIII (1910) p. 493, 7850 Myc. Germ. n. 929. — Maculis amphigenis, orbicularibus v. suborbicularibus, minutis, 2-3 mm. diam., arescendo albidis v. griseis, margine purpureo cinctis; pycnidiis epiphyllis, singulis v. paucis in quaque macula, atris, exiguis; sporulis filiformibus, rectis v. flexuosis, guttulatis v. spurie septatis, hyalinis, 35-40 × 1.

Hab. in foliis inferioribus Stenactidis annuæ prope Gerolzhofen Franconiæ inf. in Bavaria (A. VILL).

89. Septoria Matricariæ Hollós, Ann. Mus. Nat. Hungar. VIII (1910) 7851 p. 5. — Pycnidiis sparsis, epidermide tectis, globulosis, atris, poro pertusis, 100-130 μ. diam., contextu celluloso; sporulis vermicularibus, intus granulosis, continuis, hyalinis, 40-60 × 2-2,5.

Hab. in foliis languidis Matricaria discoidea prope Nagy-Körös Hungaria.

90. Septoria baccharidicola Spegazz., Fungi Paulist., Rev. Mus. La 7852

Plata t. XV, p. 37 (1908). — Maculis amphigenis orbiculari-repandulis parvis 1-5 mm. diam., linea callosa atra limitatis, centro sordide subtestaceis; pycnidiis lenticularibus 75-80  $\mu$ . diam. innato-erumpentibus, membranaceis, glabris, nigris, primo epidermide tectis dein erumpentibus, ostiolo latiusculo perforatis, contextu minute denseque parenchymatico fuligineo; sporulis e cylindraceo lenissime subclavulatis, superne obtusiusculis inferne acutiusculis, 30-35  $\times$  3, rectis v. sigmoideis, obsolete triseptatis, hyalinis.

Hab. ad folia Baccharidis speciei cujusdam prope Sao Paulo Brasilia (USTERI) — Species cum Sept. Pingrææ Speg. non comparanda.

91. Septoria flourensicola Speg., Fungi Chilenses (1910) p. 169. — <sup>7858</sup> Maculis orbicularibus determinatis, amphigenis, albescentibus, 1-5 mm. diam.; pycnidiis sæpius solitariis centro macularum ad epiphyllum innato-erumpentibus, lenticularibus, 50-75 μ. diam., minute ostiolatis, tenuissime membranaceis; sporulis bacillaribus rectis, arcuatis v. sigmoideis, 1-septatis, hyalinis, 20-40 × 2-3.

Hab. in foliis languidis Flourensiæ thuriferæ, Cerro Caracol de Concepción, Chile Amer. austr.

92. Septoria Mutisiæ Speg., Myc. Argent. V p. 385, in Anal. Mus. 7354
Nac. Buenos Aires XX (1910). — Maculis nullis v. obsoletissimis, foliis infectis arescentibus plus minusve sordide cinerescentibus hinc inde pallidioribus; pycnidiis sparsis v. laxe gregariis epidermide velatis, vix prominulis, sublenticularibus, 90-110 μ. diam., membranaceis, ostiolatis, contextu pellucido subdistincto olivaceo; sporulis subfusoideis v. lenissime subclavulatis, 50-60 × 4-5, rectis v. vix curvulis, hyalinis, 1-3-septatis.

Hab. ad folia languida Mutisiæ subspinosæ in montibus Cacheuta Argentina America austr.

93. Septoria Taraxaci Hollós, Ann. Mus. Nat. Hung. V (1907) <sup>7355</sup> p. 462. — Maculis orbicularibus, cinereis, nigro-cinetis; pycnidiis epiphyllis, sparsis, lenticularibus, olivaceis, poro pertusis, 100-120 μ. diam., contextu parenchymatico; sporulis acicularibus, rectis v. curvulis, continuis, hyalinis, 16-24 ≈ 1.

Hab. in foliis vivis Taraxaci officinalis prope Kecskemét Hungariæ.

94. Septoria sonchicola Hollós, Ann. Mus. Nat. Hung. VI (1908) 7856 p. 533. — Maculis orbicularibus, ochraceis, nigro-cinetis, 1-2 mm. diam.; pycnidiis amphigenis gregariis v. sparsis, lenticularibus, nigris, poro pertusis, 80-100 µ. diam., contextu parenchymatico;

sporulis acicularibus, rectis v. curvulis, continuis, hyalinis,  $40-54 \times 2$ .

Hab. in foliis semivivis Sonchi uliginosi prope Kecskemét Hungaria. — A Sept. Sonchi Sacc., S. sonchifolia Cooke, S. sonchina Thüm. diversa.

95. Septoria modonia Sacc. Ann. Mycol. VII (1909) p. 434. — Ma-7357 culis amphigenis, minutis, subcircularibus, 1-2 mm. latis, mox candidis, fusco-purpureo-marginatis; pycnidiis paucis, punctiformibus, atro-brunneis, pertusis, 60-70 μ. diam.; sporulis bacillaribus, rectis curvulisve, utrinque rotundatis, 40-50 × 2, haud guttulatis, continuis, hyalinis.

Hab. in foliis, raro, caulibus Sonchi arvensis adhuc vivis, pr. Parisios Gallie (P. Hariot). — A Sept. sonchifolia, sonchina et Sonchi diversa. An var. præcedentis?

96. Septoria Hyoseridis Maire, Bull. Soc. Bot. Fr. LIV (1907) pag. 7358 CLXXXVIII. — Pycnidiis nigris, in macula arida purpureo-maculata, 1-3 mm. diam. immersis, globosis, 70-80 μ. diam., ostiolo papillato; sporulis acicularibus, utrinque acutis, interdum, 1-2-septatis. 25-35 × 1.

Hab. in foliis vivis Hyoseridis radiate, Tlemcen, Africa bor.

97. Septoria ambrosicola Speg., Myc. Argent. V in Anal. Mus. Nac. 7859 Buenos Aires XX (1910). — Maculis amphigenis, orbicularibus, determinatis, 1-3 mm. diam., candidis; pycnidiis epiphyllis, paucis, epidermide tectis, sublenticularibus, 90-100 μ. diam., nigris, ostiolatis, membranaceis, contextu parenchymatico parum perspicuo olivaceo; sporulis filiformibus utrinque attenuato-acutatis, 50-100 × 1,5-2, subarcuatis dein flexuosulis, hyalinis, continuis.

Hab. vulgatissima ad folia viva Ambrosiae scabrae in silvaticis circa La Plata Argentina Amer. austr.

98. Septoria succisicola Sacc. — Syll. III p. 553 — Var. intermedia 7860 Sacc. in Ann. Mycol. XI (1911) p. 252. — A typo dignoscitur sporulis æque breviusculis, 18-20 ≈ 0,5, maculis vero foliorum atropurpureo-marginatis ut in Septoria scabiosicola Desm.

Hab. in foliis languidis Succisæ in Gallia (P. HARIOT).

99. Septoria citrullicola Potebnia, Myc. St. in Ann. Myc. v. V 7361 (1907) p. 10 et Trav. Soc. Nat. Univ. Kharkoi XXXXIII (1907). — Maculis albidis, rotundatis, 1,5-2 mm. latis, zona obscuriori circumdatis; pycnidis 2-10 in quaque macula, 120 μ. cr.; sporulis curvulis, intricatis, 45 v 1.

Hab. in foliis vivis Citrulli vulgaris prope Kursk Rossia. — A Sept. Citrulli Ell. et Ev. sporulis duplo longioribus diversa.

100. Septoria Rohlenæ Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 7862 p. 479. — Maculis epiphyllis, infra indistinctis, griseis, nervis limitatis, angulosis, brunneo-marginatis, 2-4 mm. latis, sæpe confluentibus; pycnidiis epiphyllis numerosis, confertis, sæpe confluentibus, globosis, 60-80 μ. latis, nigris, subepidermicis, dein collo conoideo 25 μ. lato, depresso prominentibus; contextu grosse parenchymatico castaneo-brunneo; sporulis filiformibus, supra leniter angustatis, apice acutiusculis, 24-45 × 1,5-2, transverse 1-3-septatis, rectis v. curvulis, hyalinis, in sporophoris papilliformibus insidentibus.

Hab. in foliis vivis Scrophulariæ Scopolii prope Lukavica Planina Montenegro. — A Sept. Scrophulariæ diversa.

101. Septoria Triphylli Hollos, Ann. Mus. Nat. Hung. IV (1906) 7868 p. 347. — Maculis nullis; pycnidiis emphigenis, aggregatis, lenticularibus, nigris, poro pertusis, 100-150 μ. diam., contextu parenchymatico; sporulis filiformibus, rectis v. leviter flexuosis, utrinque obtusis, continuis, hyalinis, 40-70 × 1,5-2.

Hab. in foliis languidis Veronicæ triphylli, Kecskemét et Nagy-Körös Hungariæ. — A ceteris omnibus speciebus Septoriæ in Veronica vigentibus videtur diversa.

102. Septoria Veronicæ Desm., Sacc., Syll. III p. 534 — var. coty-7364 ledonicola C. Mass., Osserv. fitolog. in Madonna Verona v. II (1908) Extr. p. 9. — Pycnidiis gregariis, 100-170 μ. diam., amphigenis, globosis, prominentibus, sæpe confluentibus, nigris, membranaceis et ostiolo lato pertusis; maculis suborbicularibus pallide cinereis et zona rufescente limitatis; sporulis subfiliformibus, hyalinis, continuis, vix utrinque attenuatis, 40-60 × 2.

Hab. in cotyledonibus nascescentibus Veronicæ hederifoliæ Tregnago Verona Italiæ bor.

103. Septoria Tozziæ R. Maire (ad interim), in Oesterr bot. Ztschr. 7865 LVII (1907) p. 424. — Maculis brunneis aridis; pycnidiis sæpius hypophyllis, 80-120 μ. diam., fuscis, immersis; sporulis filiformibus, flexuosis, 1-3-septatis apice acutis, basi obtusatis v. retusis, 12-30 ≈ 1.

Hab. in foliis vivis v. languidis Tozziæ alpinæ, prope Maurach Tiroliæ, 1600 m. alt.

104. Septoria Melampyri Strasser, Verh. k. k. zool. bot. Ges. Wien 7366

LX (1910) p. 316. - Pycnidiis membranaceis, depresse sphæroideis, udis flavescentibus, pseudoparenchymaticis, siccis nigricantibus, 60-70 µ. diam., numerosis, sed sparsis in maculis irregularibus, albidis dein brunneis non vel leniter marginatis; sporulis hyalinis non septatis, curvulis, 24-36 × 1-1,5.

Hab. in foliis Melampyri silvatici, Sonntagberg Austriæ

(Gelbenegger).

105. Septoria solanophila Speg., Myc. Argent. V p. 386, in Anal. 7867 Mus. Nac. Buenos Aires XX (1910). - Maculis amphigenis orbicularibus, 1-3 mm. diani., candidis purpureo-areolatis; pycnidiis epiphyllis hypodermicis, in centro macularum solitariis v. paucis, lenticularibus, 80-100 µ. diam., contextu parum distincto, atris, membranaceis, minute ostiolatis; sporulis acicularibus leniter arcuatis 50-80 × 3-4, 3-5-septatis, hyalinis.

Hab. vulgata ad folia viva Solani verbascifolii in hortis La Plata Argentina Amer. bor.

106. Septoria Tomates Spegazz., Fungi Paulist., Rev. Mus. La Plata 7868 t. XV, p. 39 (1908). — Maculis suborbicularibus 1-3 mm. diam, sæpe confluendo totum folium obtegentibus, subindetermitatis, ad epiphyllum concaviusculis, e fusco sordide subtestaceis; pycnidiis solitariis v. laxissime pauci-gregariis, hypophyllis, innatis, lenticularibus 60-90 µ. diam., tenui-membranaceis, contextu parenchymatico fuligineo; sporulis arcuatulis v. subsigmoideis 30-50 × 1, hvalinis, obsolete septulatis.

Hab. ad folia languida Solani Lycopersici in hortis Sâo Paulo Brasilia (USTERI). — A Sept. Lycopersici Speg. toto calo recedens.

107. Septoria Lycopersici Spegazz. — Syll. III p. 535, — fm. italica 7369 Ferr., Malpighia XX (1906) p. 148. — Maculis arescendo albidis, suborbicularibus in pag. superiore olivaceis; pycnidiis præcipue hypophyllis; sporulis 70-75 × 2,5-3, indistincte septatis.

Hab. in foliis Solani Lycopersici culti quod valde vexat. Alba in Pedemontio, Italia bor.

108. Septoria Hyoscyami Hollós, Ann. Mus. Nat. Hung. VI (1908) 7370 p. 532. - Maculis amphigenis, orbicularibus, usque ad 10 mm.. ochraceis, brunneo-marginatis; pycnidiis epiphyllis, sparsis v. hine inde dense gregariis, globulosis, prominulis, poro pertusis, brunneis, 180-220 p. diam., contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, rectis v. curvulis, 1-2-septatis. non v. constrictis, hyalinis, intus granulosis, 16-30 > 5-7.

Hab. in foliis vivis Hyoscyami nigri prope Keeskemét Hungariæ. — A Septoria pinzolensi Kab. et Bub. diversa.

109. Septoria Himeranthi Speg., Myc. Argent. V p. 383, in Ana.l 7371 Mus. Nac. Buenos Aires XX (1910). — Maculis orbicularibus determinatis sordide pallescentibus, areola angusta obscure olivascenti limitatis; pycnidiis epiphyllis innatis, laxe gregariis, subcircinantibus, sublenticularibus 100-110 μ. diam., membranaceis ostiolatis, contextu parum distincto olivaceo; sporulis acicularibus continuis, utrinque acutatis, 35-45 × 1, non v. vix flexuosis, hyalinis.

Hab. ad folia languida Himeranthi runcinati in pratis circa La Plata Argentina Amer. austr.

110. Septoria Sheareana Sacc. et Trott. — Septoria longispora 7372 Shear in Bull. Torr. Bot. Cb. XXXIV (1907) p. 308, non Bond., nec Voglino, nec Miyake. — Pycnidiis gregariis v. quandoque sparsis, globosis v. depresse globosis, suberumpentibus, epidermide tectis, ostiolatis, 150-225 μ. diam.; ostiolo parvo; sporulis hyalinis filiformibus, curvulis, sæpe sigmoideis, quandoque pseudoseptatis, 150-240 × 3-4, nonnullis usque ad 300 μ. long.; sporophoris simplicibus, angustis, 6-9 μ. long.

Hab. in foliis fructibusque Vaccinii macrocarpi, in America boreali.

111. Septoria Azaleæ-indicæ Maubl. Bull. Soc. Myc. de Fr. XXII 7373 (1906) p. 66. — Maculis orbicularibus, amphigenis, superne candidis, atro-marginatis; pycnidiis punctiformibus, atris, sparsis, epiphyllis, circ. 150 μ. diam.; sporulis filiformibus, curvulis v. flexuosis, continuis, demum obscure septatis, hyalinis, 50-65 ≥ 1,5.

Hab. in folis vivis Azaleæ indicæ, Sao Paulo Brasiliæ (Puttemans). — A S. Azaleæ Vogl. diversa.

112. Septoria Syriacæ Kab. et Bub. Hedwigia XLII (1908) p. 360; 7874 Fungi imp. exs. fasc. XI (1909) n. 523. — Maculis epiphyllis, copiose distributis, rotundato-angulosis, nigris, opacis, sæpe confluentibus, initio elevatis denique excavatis, expallescentibus, immarginatis; pycnidiis epiphyllis, raro hypophyllis, minutis, paucis gregariis v. sparsis, profunde immersis, diu epidermide tectis, poro minuto papilliformi rotundato v. irregulari erumpentibus et sporulos in cirrum tenuem album expellentibus, brunneis, globosis, 60–150 μ. diam., contextu tenui parenchymatico; sporulis filiformibus 20-32 × 1,5 rectis v. raro curvulis, transverse uniseptatis, hyalinis.

Hab. in foliis languidis v. emortuis Asclepiadis syriacæ, prope Turnau Bohemia (KABAT).

113. Septoria Rajkoffii Bub., Fungi imp. exs. fasc. XI (1909) n. 522 7375

(sine diagnosi).

Hab. in foliis Cynanchi acuti pr. Sadovo Bulgariæ. — Auctor monet se proxime diagnosim editurum fore.

114. Septoria Periplocæ Hollós, Ann. Mus. Nat. Hung. VII (1909) 7876 p. 54. — Maculis subrotundo-ellipticis, brunneis, medio expallentibus, 3-5 mm. long.; pycnidiis epiphyllis, sparsis, depressoglobosis, fuscis, poro pertusis, 50-60 μ. diam., contextu celluloso; sporulis acicularibus, rectis v. curvulis, continuis, minute guttulatis, hyalinis. 18-22 × 1-15.

Hab in foliis languidis Periplocæ græcæ prope Nagy-Körös Hungariæ.

115. Septoria Arjonæ Speg., Myc. Argent. V, p. 379, in Anal. Mus. 7877 Nac. Buenos Aires XX (1910). — Pycnidiis confertis sed discretis, innatis, epidermide tectis, lenticularibus 90-110 μ. diam., tenuissime membranaceis, contextu minute parenchymatico fumoso; sporulis linearibus subfusoideis, sæpius uniseptatis, non v. lenissime curvulis, ad septum non constrictis, 24-28 × 3-4.

Hab. vulgata ad folia caulesque Arjonæ longifoliæ in montanis Potrerillos prope Mendoza Argentina Amer. austr.

116. Septoria Stelleræ Rostr., Bot. Tidsskz., XXVIII (1907) pag. 7878
 218. — Pycnidiis atris, minutis, primo tectis, cortice immersis, densissime gregariis; sporulis semicirculari-curvatis, 20 × 1-2.

Hab. in ramis Stelleræ Lessertii, Chiwa ad Giaur-Kala Asia media.

117. Septoria? loranthicola Speg. Myc. Argent. V, p. 384, in Anal. 7879 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis suborbicularibus, 2-5 mm. diam., parvis, calloso-convexulis, sordide pallideque rufescentibus, determinatis; pycnidiis innato-erumpentibus, confertis, coriacellis, atris, subhemisphæricis, 80-110 μ. diam., contextu opaco indistincto, ostiolo obsoleto; sporulis utrinque obtusiuscule acutatis, curvulis, hyalinis, 25-30 × 1-1,5, minute parceque guttulatis.

Hab. ad folia viva Loranthi ligustrini in silvis Lechiguana prov. de Salta Argent. Amer. austr.

118. Septoria Riviniæ Patouill., Bull. Soc. Mycol. Fr. XXIV (1908) 7980 p. 12. — Maculis brunneis, polygoniis, sparsis v. confluentibus, postremo albicantibus; pycnidiis globosis, atris, coriaceis, glabris,

250  $\mu$ . diam.; contextu anguloso celluloso; sporulis hyalinis, falciformibus, continuis, apice attenuatis, inferne truncatis, 45-60  $\times$  3; sporophoris monosporis, simplicibus, 20  $\times$  4.

Hab. in pagina inf. foliorum Riviniæ octandræ, Guada-

lupa, Amer. centr. (Duss).

119. Septoria? Talæ Speg., Myc. Argent. V, p. 387, in Anal. Mus. <sup>7381</sup> Nac. Buenos Aires XX (1910). — Maculis amphigenis suborbicularibus, 5-15 mm. diam., pallescentibus, centro sæpius albicantibus, subdeterminatis; pycnidiis epiphyllis innato-erumpentibus, 150-250 μ. diam., atris, astomis, tenui-membranaceis, contextu indistincto olivaceo; sporulis bacillaribus utrinque subacutiuscule rotundatis, 40-60 × 5-6, primo continuis dein 1-3-septatis, non constrictis, obsolete polyblastis, hyalinis.

Hab. ad folia languida Celtidis Talæ in silvula Santa Catalina Argentina Amer. austr.

120. Septoria turcica Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 7382 p. 480. — Maculis rotundatis v. elongatis, brunneo-alutaceis, arescentibus, vix distincte marginatis; pycnidiis amphigenis confertis, minutis, globosis, 40-90 μ. latis, nigris, contextu obscure brunneo, primum minute ostiolatis dein late apertis; sporulis fusoideis, 11-20 × 2, rectis v. falcatis, utrinque angustatis, transverse uniseptatis, hyalinis, sæpe irregularibus.

Hab. in foliis vivis Mercurialis annuæ prope Ulcinj in

horto Turci cujusdam, Montenegro.

121. Septoria Parietariæ Davis, Trans. Wisconsin Acad. of Sc. XVI, 7883 Pt. II (1909) p. 764. — Maculis suborbicularibus v. irregularibus, immarginatis, fuligineis; pycnidiis epiphyllis sed infra emergentibus, sparsis, obscure brunneis v. nigris, globosis, ostiolatis, 70-100 μ. diam.; sporulis hyalinis, bacillaribus, rectis v. curvulis, 30-36 × 1-1,5.

Hab. in foliis Parietariæ pennsylvanicæ, Sullivam Amer, bor.

122. Septoria humulina Bondarzew, Journ. f. Pflanzenkrankh.; Ber. d. 7384 plytopathol. Zentralst. d. k. Bot. Gartens in St. Petersburg (1910) p. 34. — Maculis foliicolis pallide et sordide ferrugineis, primum sparsis dein confluentibus; pycnidiis subimmersis, 60-90 μ. diam.; sporulis hyalinis unilocularibus v. 1-3-raro 4-septatis, 25-40 × 1,5.

Hab. in foliis Humuli Lupuli in ditione Kursk Rossiæ.

123. Septoria Elasticæ Koord., Botan. Untersuch. Java (1907) p. 211, 7385

f. 28. – Maculis amphigenis subcircularibus irregularibusve, arescendo expallescentibus, linea nigra distinctissima marginatis, 1–3 mm. latis; pycnidiis subcarbonaceis plerumque (an semper?) hypophyllis, erumpentibus, late ovoideis v. subglobosis, poro pertusis, glabris, 120–150  $\mu$ . diam.; sporulis filiformibus v. bacillaribus, curvulis v. curvatis v. flexuosis, indistincte 1-3-septatis v. guttulatis,  $15\text{-}28 \times 1\text{-}1,5$ , plerumque  $25\text{-}28 \times 1,33$ , hyalinis.

Hab. in foliis emortuis Fici elasticæ prope Loano prov. Kedu Java oct. 1905 (Koorders). — Septoriæ brachysporæ Sacc. proxima sed satis diversa.

124. Septoria eburnea v. Höhnel, Fragm. z. Mykol., Sitzb. k. Ak. d. 7886 Wiss. Wien. Bd. CXVI Abt. I (1907) p. 144. — Maculis irregulariter rotundato-angulosis, numerosis, 2-7 mm. latis, supra postremo albo-eburneis, infra brunneis late obscure brunneo-marginatis; pycnidiis epiphyllis, æqualiter distributis, usque ad 50 in quoque macula, ovoideis, immersis, 200 × 170, supra obtusis, poro depresso 60 μ. lato præditis; parietibus celluloso-plectenchymaticis, stratu externo flavo-brunneo, tenuiore, interno hyalino; sporulis filiformibus, apice obtusis, indistincte 3-5-septatis, 64-92 × 1,5-2,5.

Hab. in foliis Artocarpi incisæ, M. Apia in Ins. Samoa (Rechinger).

125. Septoria dryophila Sacc., Ann. Mycol. VI (1908) p. 556. — 7387 Maculis epiphyllis candicantibus, inferne alutaceis, angustissime atro-marginatis, modo anguloso-orbicularibus, 3-5 mm. diam. modo confluendo multo amplioribus; pycnidiis paucis, punctiformibus, lenticularibus, nigris, 100-150 μ. diam; sporulis bacillaribus, rectiusculis, utrinque obtusulis, crebro sub-10-septatis, 50-56 × 3, hyalinis.

Hab. in foliis languidis Quercus Ilicis, Villa Favorita, Palermo, Sicilia (J. H. Mattei). — Affinis Septoriæ dryinæ a qua differt maculis ampliusculis, non rubro-cinctis, sporulis duplo crassioribus etc.

126. Septoria marmorata Kab. et Bub., Fünft. Beitr. Pilzfl. Tir. in 7888 Ber. naturw.- med. Ver. Innsbruck, XXX Jahrg. (1905-1906) Extr. p. 10. — Maculis epiphyllis, utrinque visibilibus, irregulariter rotundato-angulosis, nervis vix limitatis, 1-6 mm. latis, primum indistinctis, dein brunneis, demum pallide flavo-alutaceis et medio albo-aridis, marmoratis, sæpe late confluentibus; pycnidiis epiphyllis in maculis copiose distributis, pellucidis, globosis v. confertis, 100-140 μ. latis, pallide brunneis v. brunneis, diu epidermide tec-

tis clausisque demum erumpentibus, contextu parenchymatico, flavo-brunneo, cyanescenti; sporulis filiformibus,  $25-60 \approx 1,5-2,5$ , rectis v. curvulis uno apice angustatis altero rotundatis, 1-3-septatis, hyalinis.

Hab. in foliis vivis Populi Tremulæ, San Stefano Valle di Genova, in agro Tridentino

127. Septoria Populi (Desm.?) P. Henn. Pilzfl v. Lanke II in Ver- 7889 handl. bot. Vereins Brandb (1905) p. 222, an Sept. Populi Desm.?

— Sporulis utrinque obtusis, continuis, minute pluriguttulatis, 30-60 × 3,5.

Hab. in foliis Populi tremulæ, Lanke Germaniæ.

128. Septoria Podocarpi Niessl in Rabenh. Fungi Europ. n. 1960 <sup>7890</sup> (1875). — Pycnidiis epiphyllis, sparsis, punctiformibus, innato-prominulis, 120-150 μ. diam., nigris; sporulis elongatis, cylindraceis v. curvatis, utroque polo obtusis, plerumque 3-septatis, 120-130 × 2-3, hyalinis.

Hab. in foliis Podocarpi dejectis in Horto bot. Neapolt. (Cesati). — Egr. Turconi communicavit notas pycnidii ex exempl. Horti Papiensis, nam in meo ad n. 1960 alia res conspicitur.

129. Septoria ornithogalicola Hollós, Ann. Mus. Nat. Hung. VI 7891 (1908) p. 532. — Maculis amphigenis magnam foliis partem occupantibus, ochraceis, margine indefinito; pycnidiis amphigenis, gregariis sparsisve, epidermide velatis, lenticularibus, ochraceis, poro pertusis, 180-250 μ. diam., contextu celluloso; sporulis bacillaribus, utrinque leniter attenuatis, rectis v. curvulis, intus granulosis v. spurie pluriseptatis, hyalinis, 80-100 × 2,5-3,5.

Hab. in foliis languidis, quæ sursum demum arescunt, Ornithogali Boucheani prope Czegléd et Nagy-Körös Hungariæ.

— A Sept. ornithogalea Oud. et S. Ornithogali Pass. diversa.

130. Septoria Bellevaliæ Patouill. Bull. trim. Soc. Myc. de France, 7392 vol. XXI (1905) p. 121. — Maculis elongatis, albidis, linea rubra limitatis, 2-4 cm. long., 6 mm. latis; pycnidiis sparsis, numerosis, erumpentibus, globoideis, nigris, coriaceis 180 μ. cr., ostiolatis; sporulis copiosis, hyalinis, rectis v. curvulis, linearibus, utrinque attenuatis, 45 60 × 3-4, transverse triseptatis, ad septa non constrictis, guttulatis v. non.

Hab. in foliis Bellevaliæ dubiæ, Algeria Africa bor.

131. Septoria Polygonati Kab. et Bub. Hedwigia L (1909) p. 41. — 7898 Maculis amphigenis, subcircularibus v. ellipticis, 8 mm. lat., rarius ad 1,5 cm., alutaceis, demum arescendo subgriseis, late atro-

purpureo-brunneo limbatis, sæpe duabus confluentibus, copiosis; pycnidiis epiphyllis, raro hypophyllis, punctiformibus, subsparsis raro confertis, depresso-globosis, atro-brunneis, translucide ochraceis, 100-150  $\mu$ . diam., diu epidermide tectis, papilla breviter cylindracea erumpentibus, contextu laxe parenchymatico; sporulis copiosis, falciformibus, raro rectis,  $25\text{-}38 \times 2\text{-}2.5$ , utrinque acutatis, hyalinis; sporophoris brevibus.

Hab. in foliis vivis Polygonati multiflori culti, Turnau Bohemiæ. — Sept. carpophilæ affinis.

132. Septoria falcispora Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 7894
p. 477. — Maculis utrinque visibilibus, rotundatis v. elongatis,
5-8 mm. latis, sordide albidis, non limitatis; pycnidiis epiphyllis, utrinque visibilibus, globosis, leniter depressis, flavo-ochraceis, 50-100 μ. latis, contextu flavido v. subhyalino, subepidermicis demum erumpentibus et irregulariter apertis; sporulis falcatis, raro subrectis, 15-24 × 2-2,5, apice angustatis, unilocularibus, hyalinis; sporophoris cæspitosis, 10 × 3,5-4,5, hyalinis, cellulis cylindraceis brevibus, flavidis suffultis.

Hab. in foliis emortuis Erythronii Dentis-canis prope Ulcinj Montenegro.

133. Septoria malisorica Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 7395 p. 478. — Maculis utrinque visibilibus, elongatis, usque ad 3 cm. longis, 3-4 mm. latis, griseis, purpureo-brunneo-marginatis, arescentibus; pycnidiis æque distributis, amphigenis, subglobosis, sordide flavo-brunneis, 90·180 μ. latis, tenuiter tunicatis, subepidermicis, demum erumpentibus, contextu minute cellulari flavo-ochraceo; sporulis breviter fusoideis, 35-55 × 2,5-3, quadrilocularibus, raro longioribus et tunc sexlocularibus, rectis v. curvulis, apice angustatis, hyalinis.

Hab. in foliis vivis Leucoji æstivi prope Ulcinj Montenegro.

134. Septoria Muscari-neglecti Bubak, Bull. Herb. Boiss. 2 sér. VI 7896 (1906) p. 478. — Pycnidiis amphigenis, primum pallide brunneis, dein in partibus exsiccatis subnigris, epidermide tectis, globosis 128-150 μ. latis, contextu castaneo-brunneo; sporulis anguste fusoideis, 45-60 × 2,5-4, plerumque incurvatis, utrinque angustatis, transverse 3-septatis, hyalinis, sporophoris brevibus, confertis, hyalinis.

Hab. in foliis vivis Muscari neglecti prope Ulcinj Montenegro.

135. Septoria Allii-striatelli Speg., Myc. Argent. V p. 378, in Anal. 7397 Mus. Nac. Buenos Aires XX (1910). — Maculis pallescentibus indeterminatis; pycnidiis plus minusve gregariis, innato-erumpentibus, globulosis, 75-125 μ. diam., membranaceis, nigro ostiolatis, contextu minute parenchymatico; sporulis filiformibus utrinque acutiusculis, 40-50 × 1,5, sæpius leniter curvulis, continuis, hyalinis.

Hab. vulgata ad folia viva Allii striatelli in herbosis La

Plata Argentina Amer. austr.

136. Septoria macrospora Alm. et Cam., Revista Agron. IV (1906) 7398 p. 138, tab. III, fig. 5-6; Bol. Soc. Brot. XXV (1908-1909) Extr. p. 53. — Pycnidiis plerumque epi- raro etiam hypophyllis, sparsis, subgloboso-depressis, aterrimis, immersis, tectis, demum vero, epidermide lacerata, detectis, ostiolo simplici, pertuso, erumpenti, 400-550 × 350-400; sporulis, cylindraceis, fusoideis v. subclaviformibus, sæpius 3- vel 4-septatis, haud constrictis, rectis v. leniter sursum attenuatis, hyalinis, 85-100 × 10-12.

Hab. in foliis Yuccæ aloifoliæ, in horto bot. Coimbra Lusitania (A. Moller). — An potius Stagonosporæ macrosporæ (in

Agave) varietas?

137. Septoria eriophoricola Hollós, Ann. Mus. Nat. Hungar. V 7399 (1907) p. 51. — Pycnidiis sine macula inter nervos folii seriatis, epidermide tectis, lenticularibus, nigris, poro pertusis, 110-150  $\mu$ . diam., contextu parenchymatico; sporulis filiformibus, curvulis continuis, granulosis, hyalinis, 30-40  $\approx$  1.

Hab. in foliis Eriophori latifolii prope Kecskemét Hungariæ. — A Septoria Eriophori Oud. pycnidiis majoribus et sporulis minoribus diversa.

138. Septoria Schæni Hollós, Ann. Mus. Nat. Hungar. VIII (1910) 7400 p. 6. — Pycnidiis sparsis, punctiformibus, epidermide tectis, globulosis, fuscis, ostiolo papillato erumpentibus, 120-160 μ. diam., contextu celluloso; sporulis cylindraceis, utrinque obtusis, rectis v. curvulis, continuis, pluriguttulatis, dilute flavidulis, 54-70 × 2,5-3.

Hab. in calamis Scheni nigricantis prope Izsák Hun-

gariæ.

139. Septoria scirpicola Hollós, Ann. Mus. Nat. Hungar. VIII 7401 (1910) p. 6. — Pycnidiis sparsis, epidermide tectis, subsphæricis, fuscis, poro pertusis, 140-180 μ. diam., contextu celluloso; sporulis cylindraceis, utrinque rotundatis, curvulis, 5-septatis, guttulatis, flavidulis, 65-90 × 3,5 × 4.

Hab. in calamis Scirpi Holoschæni prope Kecskemét Hun-

gariæ. — A Septoria Holoschæni characteribus sporluarum omnino diversa.

140. Septoria Polypogonis Sacc. et Trott. Ann. Mycol. X (1912) 7402 p. 513. — Maculis obsoletis oblongis irregularibus, arescentibus inefinitis, centro pallidioribus; pycnidiis innato-erumpentibus, sublenticularibus, nigris, ostiolo latiusculo 18-20 µ. lato, præditis,  $^1/_{10}$  mm. diam.; sporulis subcylindraceis v. sæpius elongato-subclavulatis, plerumque curvulis v. subsigmoideis, triseptatis, 22-35 × 4-6, guttulatis, hyalinis.

Hab. in foliis vivis Polypogonis monspeliensis, Gar-

garesc prope Tripoli Africa trop. (A. Trotter).

141. Septoria? andropogonicola Speg. Myc. Argent. V, p. 379, in 7408

Ann. Mus. Nac. Buenos Aires XX (1910). — Pycnidiis seriatis

constipatis confluentibusque v. lineolas nigras 1.2 mm. long. 100-150  $\mu$ . cr. efformantibus, atris, subcarbonaceis, globulosis 100-120  $\mu$ . diam., contextu opaco indistincto donatis, ostiolo minuto irregulari pertusis; sporulis acicularibus,  $40 \approx 1$ , rectis v. subflexuosis, continuis v. obsolete multiseptatis, hyalinis.

Hab. ad folia languida v. arida Andropogonis condensati prope Apostoles Misiones, Argentina, Amer. austr.

142. Septoria bromicola Speg., Fungi Chilenses (1910) p. 168. — 7404 Maculis nullis; pycnidiis parenchymate innatis, laxe seriatis, epidermide minute nigrificata tectis, lenticularibus, 100-120 μ. diam., atris, subcarbonaceis, ostiolo parvulo perforatis; sporulis filiformibus, hyalinis, plus v. minus flexuosis, 35-40 × 1-1,25.

Hab. in foliis siccis Bromi unioloidis, Cerro Caracol de Concepción Chile Amer. austr.

143. Septoria bromivora Speg., Myc. Argent. V, p. 380, in Anal. 7405 Mus. Nac. Buenos Aires XX (1910). — Pycnidiis folio toto arescente innatis, gregariis, amphigenis, sublenticularibus, 100-150 μ. diam., atris, membranaceis, ?astomis, contextu grosse parenchymatico fuligineo; sporulis bacillaribus arcuatulis superne attenuato-acutatis, inferne rotundatis, 30 × 2, hyalinis.

Hab. ad folia languida v. arida Bromi cujusdam, Rio Grande Fuegia Argentina Amer. austr.

144. Septoria halophila Speg. Myc. Argent. V, p. 382, in Anal. Mus. 7406 Nac. Buenos Aires XX (1910). — Maculis nullis sed matrice tota arescente et subcinerescente; pycnidiis parenchymate innatis, collabescentibus, lenticularibus, 200-250 µ. diam., membranaceis, atris, ostiolatis, parenchymaticis; sporulis, filiformibus utrinque acutatis,

45-50 ≈ 1,5, sæpius medio 1-septatis, hyalinis, rectis v. sigmoideis. Hab. ad folia arida v. languida Hordei halophili, Villa Maria prov. Cordoba, Argentina Amer. austr.

145. Septoria Urvilleana Speg. Myc. Argent. V, p. 387, in An. Mus. 7407 Nac. Buenos Aires XX (1910). — Maculis indeterminatis cinerescentibus; pycnidiis amphigenis sparsis v. laxe gregariis, rarius subseriatis, parenchymate innatis epidermide tectis, sublenticularibus, 80-150 u. diam., membranaceis, atris, subastomis, contextu parenchymatico parum distincto fuligineo; sporulis lineari-subfusiformibus, 20-90 × 5-6, primo hyalinis continuis, serius 5-7-septatis, subchlorinulis.

Hab. ad folia languida v. arida Panici Urvilleani in dunis Pampa Central et Juárez Celman prope Cordoba, Argentina Amer. austr.

146. Septoria laxa Speg., Myc. Argent. V, p. 383, in An. Mus. Nac. 7408 Buenos Aires XX (1910). — Foliis infectis totis plus minusve pallescentibus; pycnidiis quandoque solitariis, quandoque plus minusve numerosis constipatis v. subconfluentibus, innatis, atris, obsolete ostiolatis, globoso-depressis, 120-150 μ. diam., contextu opaco indistincto; sporulis filiformibus utrinque acutiusculis, 50-60 v 1, sæpius leniter flexuosis, hyalinis, continuis.

Hab. ad folia languida Panici laxi prope Gualeguaychu, Entre Rios Argentina America austr.

147. Septoria macrostoma Speg. Myc. Arg. V, p. 384, in Anal. 7409 Mus. Nac. Buenos Aires XX (1910). — Maculis obsoletis pallescentibus; pycnidiis amphigenis sparsis v. laxe gregariis, subseriatis, innato-suberumpentibus, sublenticularibus, e latere compressis, 75-90 × 50-75, contextu parenchymatico parum distincto, ostiolo elliptico 30 × 20 compresso perforatis; sporulis acicularibus, 20-25 ≈ 2, leniter curvulis, continuis v. 1-septatis, hyalinis.

Hab. ad folia languida Phalaridis canariensis in arvis prope La Plata Argentina America austr.

148. Septoria thalassica Speg. Myc. Argent. V, p. 387, in Anal. 7410 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis sed partibus infectis sæpius totis flavescentibus; pycnidiis sparsis v. hinc inde laxe gregariis, innato-erumpentibus, carbonaceis, subglobosis, 150-300 µ. diam., contextu indistincto, ostiolo, latiusculo perforatis; sporulis filiformibus utrinque rotundatis, flexuosis, minute denseque guttulatis, hyalinis, 60-100 × 2,5-3,5.

Hab, ad folia nec non ad rhizomata languida Distichlidis

thalassicæ in salsis ad ostia Rio Deseado, Argentina America austr.

149. Septoria Elymi-europæi Jaap, Beitr. Pilzfl. d. Schw., Ann. Myc. 7411 V (1907) pag. 265. — Pycnidiis longitudinaliter seriatis, minutis, punctiformibus, in maculis flavidis dein brunneis insidentibus; sporulis filiformibus, septatis, 70 × 2-3.

Hab. in foliis vivis Elymi europæi, Schynigen Platte

supra Breitlauenen Helvetiæ.

150. Septoria culmifida Lind, Ann. Mycol. V (1907) p. 276. — Maculis foliicolis utrinque visibilibus, sed in epiphyllo distinctius, siccis albo-griseis, rotundatis, 3 mm. diam., late rubro-purpureo-marginatis, raro confluentibus; pycnidiis epiphyllis, prominulis, numerosis, minutis, elongatis, nigris, lineariter inter nervos dispositis, poro latiusculo præditis, c. 90 μ. diam.; sporulis fusoideis, sublunatis, unilocularibus, hyalinis, 12-17 × 2-2,5.

Hab. in foliis adhuc vivis Phlei pratensis, Horsens Jütlandia Dania. — Ad Metasphæriam culmifidam verisimiliter spectat.

151. Septoria trapezuntica Bubák in Handel-Mazzetti, Bot. Reise 7418
Pont. Randgeb. in Ann. Naturhist. Hofmus. XXIII (1909) p. 105.
— Pycnidiis hypophyllis, crebris, dense distributis, subepidermicis, globosis, parum applanatis v. irregulariter globulosis, 70-130 μ. diam., nigris, contextu dense parenchymatico, nigro-brunneo, in medio poro pertusis, ibidemque obscurioribus; sporulis fusoideis, rectis v. parum falcatis, 11-18 × 2-2,5, utrinque attenuatis, hyalinis; sporophoris brevibus, conico-papillatis, luteolis.

Hab. in foliis Oryzopsis miliaceæ var. Thomasi, in montibus ponticis Anatoliæ.

152. Septoria curvula I. Miyake, Pilze Reispfl. Japan in Journ. Col-7414 lege Agricult. Tokyo II (1910) p. 260, t. XIV, f. 60. — Pycnidiis subconfertis, globosis v. ellipsoideis, nigris, 90-100 μ. diam.; sporulis varie incurvatis v. contortis, 5-8-septatis et pluriguttulatis, 50-80 × 2,5-3.

Hab. in foliis Oryzæ sativæ, Suwa, Nagano Japonia.

153. Septoria Oryzæ Catt. — Syll. III, p. 562 — var. brasiliensis 7415
Spegazz., Fungi Paulist., Rev. Mus. La Plata t. XV, p. 38 (1908).
— A typo differt sporulis 2-5-septulatis, subcrassioribus, 20-30 v 3, leviter chlorinulis.

Hab. ad glumas languidas Oryzæ sativæ in Escola Polytechnica Sao Paulo Brasilia (USTERI).

154. Septoria Miyakei Sacc. et Trav. — Syll. XX, p. 790 — Septo- 7416

ria longispora I. Miyake, Pilze Reispfl. Japan in Journ. College Agricult. Tokyo, II (1910) p. 259, t. XIV, f. 59, non Voglino, Shear et Bondarz. — Pycnidiis immersis, ellipsoideis, papillato-prominulis, 140-150  $\mu$ . diam. 100-110  $\mu$ . alt., nigris, pseudoparenchymaticis; sporulis elongatis, apice rotundatis v. truncatis, hyalinis, sæpe incurvatis, non septatis, 30-40  $\approx$  2,5-3,2.

Hab. in glumis Oryzæ sativæ, Tottori Japonia.

155. Septoria Cristati Hollós, Ann. Mus. Nat. Hungariæ VIII (1910) 7417
pag. 6. — Maculis indeterminatis; pyonidiis epiphyllis, epidermide velatis gregariis, lenticularibus, ochraceis, poro pertusis, 80-120 μ. diam., contextu celluloso; sporulis acicularibus, rectis v. curvulis, continuis, hyalinis, 14-20 × 0,7-1.

Hab. in foliis languidis Tritici cristati prope Kecskemét Hungariæ.

156. Septoria pteridicola Kab. et Bub., Fünft. Beitr. Pilzfl. Tir., 7418 in Ber. naturw.-med. Ver. Innsbruck, XXX (1905-1906) Extr. p. 12. — Maculis epiphyllis, utrinque visibilibus, pallide brunneis v. alutaceis, irregularibus, plerumque late confluentibus; pycnidiis epiphyllis, sparsis v. gregariis, quandoque confluentibus, diu epidermide tectis, globoso-depressis, 90-180 μ. latis, contextu parenchymatico pallide flavo-brunneo; sporulis cylindraceis v. subclavatis, 10-35 × 3-4, rectis v. irregulariter incurvatis, utrinque rotundatis, primum unilocularibus, dein distincte 1-3-septatis, non constrictis, hyalinis.

Hab. in frondibus vivis v. emortuis Pteridis aquilinæ, Val di Genova in ditione Tridentina.

- 157. Septoria subinconspicua Massal., De nonnull. micr. in Atti Ist. 7419
  Ven. LIX (1900) pag. 690 et Novit. Fl. mycol. Veron. pag. 44,
  tab. 5, fig. 15. Ita vocetur Sept. inconspicua Mass. Syll.
  XVI, p. 964 (ex err.).
- 158. Septoria rostrata Kabák et Bub., Œsterr. Bot. Ztschr. (1905) 7420 p. 185, tab. II, fig. 1-2. Ita dicatur Septoria prostrata Kab. et Bub. Syll. XVIII, p. 384 ita inscripta ex err. typi in Kab. et Bub. l. c. (corr. vero in expl. tabulæ p. 192).
- PHÆOSEPTORIA Spegazz., Fungi Paulist., Rev. Mus. La Plata t. XV (1908) pag. 39 (Etym. phaios obscurus et Septoria). Pycnidia subcutaneo-erumpentia, nigricantia, minuta. Sporulæ bacillares v. anguste fusoideæ, coloratæ. Est quasi Septoria sporulis olivaceis distincta.

Phæoseptoria Papayæ Spegazz., l. c. p. 39. — Maculis angulato-7421 suborbicularibus 0,5-3 mm. diam., calloso-convexulis, candidis, determinatis, areola destitutis, sæpe confluentibus; pycnidiis epiphyllis laxe gregariis, innato-superficialibus, lenticularibus, 60-90 μ. diam., atris, glabris, membranaceis, contextu minute parenchymatico olivaceo; sporulis lenissime fusoideis v. obsoletissime clavulatis, continuis v. 1-3-septatis, utrinque acutiuscule rotundatis 30 × 3, olivaceis.

Hab. ad folia languida Caricæ Papayæ in Horto botanico Sao Paulo Brasilia (USTERI).

2. Phæoseptoria Oryzæ I. Miyake, Pilze Reispfl. Japan in Journ. College Agr. Tokyo II (1910) p. 260, t. XIV, f. 61-63. — Pycnidiis brunneis v. nigris, globosis, ovoideis v. ellipsoideis, immersis, dein ostiolo papilliformi prominulis, crasse pseudoparenchymaticis, 100-150 μ. diam. 100-125 μ. altis; sporophoris parvis hyalinis; sporulis filiformibus curvatis et contortis, sæpe elongato-clavatis, apice rotundatis, 4-6-septatis, obscure flavis, 30-45 × 2,5-3, non guttulatis.

Hab. in foliis et glumis Oryzæ sativæ in Japonia.

RHABDOSPORA Mont. — Syll. III p. 578, X p. 387, XI p. 548, XIV p. 982, XVI p. 976, XVIII p. 397.

1. Rhabdospora albanica Bubák, Bull. Herb. Boiss. 2 sér., VI (1906) 7428 pag. 480. — Pycnidiis in maculis conspicuis griseo-nigrescentibus sparse insidentibus, elongatis v. globosis quandoque fortiter depressis, 80-100 μ. latis, subepidermičis, erumpentibus, nigris, contextu obscure castaneo-brunneo; sporulis filiformibus 25-40 × 1,1-5, rectis v. curvulis, transverse 1-3(raro 4)-septatis.

Hab. in caulibus siccis Ranunculi Villarsi prope Andrijevica Montenegro.

2. Rhabdospora Anemones Hollós, Ann. Mus. Nat. Hung. IV (1906) 7424 p. 347. — Pycnidiis epidermide tectis, sparsis, globoso-depressis, nigris, 280-320 μ. diam., contextu parenchymatico; sporulis bacillaribus, rectis v. leviter flexuosis, utrinque obtusatis, continuis v. obscure 3-septatis, granulosis, hyalinis, 28-32 × 2.

Hab. in petiolis siccis Anemones silvestris prope Kecskemét Hungariæ.

Rhabdospora Trollii P. Henn., Hedw. XLV (1905) p. 33. — Ma-7425 culis pallidis effusis; pycnidiis sparsis, punctiformibus, sub epidermide erumpentibus, hemisphærieis, fuscis, poro pertusis, 60-80 μ.

cr.; sporulis oblonge fusoideis, rectis v. curvulis, hyalinis, continuis  $10 \approx 0.5$ 

Hab. in caulibus Trollii europæi, Michailowskoe Rossiæ (Graef. Scheremeteff).

4. Rhabdospora Coriariæ Speg., Fungi Chilenses (1910) p. 170. — 7426 Pycnidiis sparsis cortice innatis, epidermide tectis, lenticularibus, 90-100  $\mu$ . diam., eximie papillato-ostiolatis, atris, subcarbonaceis; sporulis acicularibus, arcuatulis, mediocribus, hyalinis, non v. 1-3-septatis, 20-35  $\approx$  2-3.

Hab. in ramulis emortuis Coriariæ ruscifoliæ, Cerro Caracol de Concepción, Chile Amer. austr.

5. Rhabdospora serbica Bubák et Ranojevic, Ann. Mycol. VIII (1910) 7427 p. 392. — Pycnidiis in caulibus sparsis v. congregatis, quandoque in maculis brunneis insidentibus, subepidermicis, lenticulari-applanatis, rotundatis v. ellipsoideis, e rubro-brunneis brunneo-nigris, 150-220 μ. lat., ex contextu pseudoparenchymatico formatis, centro poro rotundato obscuriori præditis; sporulis bacillaribus, curvatis, plerumque ad apicem, 28-35 ≈ 2, hyalinis, unilocularibus; sporophoris papilliformibus, brevibus, hyalinis.

Hab. in ramis siccis Polygalæ comosæ, Cer, Serbia. — An satis diversa a Sept. Polygalæ Hollós?

6. Rhabdospora polygalicola Hollós, Ann. Mus. Nat. Hung. IV (1906) 7428 p. 352. — Pycnidiis epidermide tectis, gregariis, globoso-depressis, brunneis, poro pertusis, 60-70 μ. d., contextu parenchymatico; sporulis acicularibus, rectis, utrinque acutis, hyalinis, 20-24 × 1.

Hab. in caulibus siccis Polygalæ comosæ prope Kecskemét Hungariæ.

Rhabdospora Polygalæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 7429
 p. 351. — Pycnidiis epidermide tectis, gregariis, globoso-depressis, brunneis, poro pertusis, 140-210 μ. diam., contextu parenchymatico; sporulis subfalcatis, granulosis, hyalinis, 24-34 × 2.

Hab. in caulibus siccis Polygalæ comosæ, prope Nagy-Körös Hungariæ.

8. Rhabdospora Dictamni Hollós, Ann. Mus. Nat. Hungar. V (1907) 7430 q. 463. -- Pycnidiis sparsis, erumpentibus, globoso-depressis, fuscis, poro pertusis, 80-100 μ. diam., contextu parenchymatico; sporulis acicularibus, rectis v. curvulis, utrinque acutis, continuis, hyalinis, 16-22 × 0,5.

Hab. in caulibus siccis Dictamni albi prope Nagy-Körös Hungariæ.

9. Rhabdospora Geranii Hollós, Ann. Mus. Nat. Hung. VII (1909) 7481 p. 54. — Pycnidiis sparsis, epidermide velatis, fuscis, ellipsoideis, 120-140 × 90-100, poro pertusis, contextu celluloso; sporulis acicularibus, rectis v. leviter flexuosis, continuis, hyalinis, 18-22 × 0,5-1.

Hab. in caulibus siccis Geranii sanguinei prope Kecske-

mét Hungariæ.

10. Rhabdospora Telephii Strasser, Verh. k. k. zool. bot. Gesell. 7432 Wien LX (1910) pag. 317. — Pycnidiis globosis, nigro-brunneis, poro centrali distincto apertis, pseudoparenchymaticis, 80-150-(180) μ. diam., primum erumpentibus et maculas griseas efformantibus; sporulis hyalinis acicularibus, uno apice subincrassatis, 20-30 × 1-1,5; sporophoris non visis.

Hab. in pedunculis siccis Sedi Telephii, Sonntagberg Au-

striæ.

11. Rhabdospora sinensis Speg., Myc. Argent. V, p. 391, in Anal. 7438 Mus. Nac. Buenos Aires XX (1910). — Pycnidiis ligno denudato insidentibus, sparsis v. sæpius gregariis atque subseriatis, subglobosis 100-150 μ. diam., atris, carbonaceis, vix papillato-ostiolatis; sporophoris dense constipatis, deorsum incrassatulis, sursum attenuato-acutatis, 10-15 × 1,5-2, hyalinis, monosporis; sporulis unciniformibus, 20 × 1, hyalinis, continuis.

Hab. a ramos aridos putrescentesque Wistariæ sinensis in hortis La Plata Argentina Amer. austr.

12. Rhabdospora bituminosa Bubák, Bull. Herb. Boiss., 2 sér., VI 7484 (1906) p. 480. — Pycnidiis confertis, caules ramulosque late obtegentibus, epidermide grisea tectis, 55-90 μ. latis, globosis, nigris, parietibus 11-12 μ. cr., contextu firmo, minute parenchymatico castaneo-brunneo, dein apice conoideo prominentibus; sporulis e fusoideo filiformibus 10-22 × 1-2, rectis v. curvis, utrinque acutatis, medio transverse uniseptatis, hyalinis.

Hab. in caulibus emortuis Psoraleæ bituminosæ prope Ulcinj Montenegro.

13. Rhabdospora Arenariæ Hollós, Ann. Mus. Nat. Hung. V (1907) 7485 p. 463. — Pycnidiis gregariis, epidermide tectis, depresso-globosis, nigris; poro pertusis, 80-100 μ. diam., contextu celluloso; sporulis acicularibus, rectis v. leviter flexuosis, medio 1-septatis, 20-26 × 1,5.

Hab. in caulibus siccis Onobrychidis arenariæ pr. Kecskemét Hungariæ. — Rhabdosp. Onobrychidis Syd. differt sporulis majoribus.

14. Rhabdospora Genistæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 7436 p. 350. — Pycnidiis epidermide tectis, gregariis, globoso-depressis, atro-brunneis, poro pertusis, 210-280 μ. diam., contextu parenchymatico; sporulis curvulis, e medio ad utrumque finem versus attenuatis, nonnunquam tenuiter 1-septatis, utrinque obtusatis, granulosis, hyalinis, 30-38 × 3-3,5.

Hab. in ramulis siccis Genistæ tinctoriæ prope Kecskemét Hungariæ. — Rh. phomatoides Sacc. et Rh. vermicularioides Syd. pycnidis et sporulis minoribus distinctæ.

15. Rhabdospora Glycyrrhizæ Hollós, Ann. Mus. Nat. Hung. V (1907) 7437 p. 463, Rhabdospora Galegæ Hollós, Ann. Mus. Nat. Hungar. IV (1906) p. 350, tab. VIII, fig. 19 (ex errore matricis). — Pycnidiis epidermide tectis, gregariis, globoso-depressis, nigris, poro pertusis, 220-260 μ. diam., contextu parenchymatico; sporulis cylindraceis, rectis v. plerumque leviter curvulis, utrinque obtusatis, 1-3-septatis, eguttulatis, hyalinis, 20-24 × 2-3.

Hab. in caulibus siccis Glycyrrhizæ echinatæ (nec Galegæ officinalis), prope Kecskemét Hungariæ.

16. Rhabdospora Gymnocladi Hollós, Növényt. Közlemén. VI (1907) 7438 Extr. p. 5. — Pycnidiis epidermide tectis, sparsis, lenticularibus, brunneis, 210-250 μ. diam., contextu parenchymatico; sporulis cylindraceis, subfalcatis, utrinque acutatis, continuis, granulosis, hyalinis, 20-26 × 1,5-2.

Hab. in ramis siccis dejectis Gymnocladi canadensis Nagy-Körös Hungariæ.

17. Rhabdospora ramealis (Desm. et Rob.) Sacc. — Syll. III. pag. 7439 580 — var. macrospora Appel et Laubert, Arb. k. Biol. Anst. f. Land. u. Forstw. V, Heft III (1905) p. 150. — A typo differt sporulis majoribus, nempe 24-60 ≥ 1,5-2,5.

Hab. in Rubi sp., Darss Germaniæ.

18. Rhabdospora hamatospora (Schulz.) Sacc. et Trav. — Syll. XX p. 7440 670, Mazzantia hamatospora st. pycn. Schulz. v. Mügg. in Verh. zool.-bot. Gesell. Wien (1871) p. 1228, t. 13, f. 7. — Pycnidiis erumpenti-subsuperficialibus, globoso-conoideis, nigris, poro pertusis, 120-400 μ. diam., coriacellis; sporulis bacillaribus, demum exquisite hamatis, utrinque obtusulis, 25 μ. longis, hyalinis.

Hab. in ramis Cydoniæ vulgaris in Hungaria.

19. Rhabdospora Fragariæ Atkins., Ann. Mycol. VI (1908) p. 59. 7441
 — Pycnidiis hypophyllis, sparsis, v. laxe gregariis, ovatis, immersis, 90-100 μ. latis; ostiolis atris late conicis erumpentibus,

25-35  $\mu$ . longis; sporulis bacillaribus, utrinque leniter attenuatis, leviter curvulis v. rectis, minute guttulatis, obscure 1-2- (an 3?) septatis, 25-30  $\approx$  1-1,5.

Hab. ad folia emortua Fragaria vesca, Ithaca N. Y. America bor.

20. Rhabdospora persiciphila Spegazz., Rev. Ministerio Agricult. Buenos Aires II (1908) n. 2, p. 38, Nota, cum icon. — Maculis suborbicularibus repandulis fusco-arescentibus, impressulis, anguste calloso-limitatis; pycnidiis epidermide velatis, subsparsis, minutis 85-120 μ. lat., latiuscule ostiolatis, coriacellis, atris, contextu parenchymatico fusco-atro; sporulis filiformibus arcuatis, 30-35 × 1-1,5, utrinque acutis, continuis, hyalinis.

Hab. in ramulis Persicæ vulgaris, morbum «viruela de las púas» dictum efficiens, prope La Plata in Rep. Argentina.

21. Rhabdospora Datiscæ Earle, Bull. of the New York Bot. Gard. <sup>7448</sup> (1904) p. 296. — Pycnidiis late sparsis, subepidermicis v. demum erumpentibus, brunneo-nigris, membranaceis, subglobosis, sed leniter depressis, circ. 100-120 μ. diam., ostiolatis; sporulis acicularibus, rectis, 35-50 × 15.

Hab. in caulibus Datiscæ glomeratæ, Stanford University, California (C. F. BAKER).

22. Rhabdospora Dauci Hollós, Ann. Mus. Nat. Hungar. VII (1909) 7444 p. 54. — Pycnidiis sparsis, epidermide velatis, atris, ellipsoideis, 240 × 170, poro pertusis, contextu celluloso; sporulis acicularibus, rectis v. leviter flexuosis, continuis, hyalinis, 20-32 × 0,5-1.

Hab. in caulibus siccis Dauci Carotæ, Nagy-Körös Hungariæ.

23. Rhabdospora Seseli Hollós, Ann. Mus. Nat. Hung. IV (1906) 7445 p. 352, tab. IX, f. 29. — Pycnidiis epidermide tectis, gregariis, globoso-depressis, fuscis, poro amplo apertis, 150-190 μ. diam., contextu parenchymatico; sporulis falcatis, utrinque obtusis, hyalinis, 24-28 ≈ 1,5-2.

Hab. in caulibus siccis Seseli glauci prope Kecskemét Hungariæ.

24. Rhabdospora Heraclei Earle, Bull. of the New York Bot. Gard. 7446 (1904) p. 296. — Pycnidiis late sparsis, nigris v. obscure brunneis, immersis, ostiolo erumpentibus, v. caule dilacerato expositis, subglobosis, non collabescentibus, circ. 400 μ. diam., contextu firmo, cellulis 8-10 μ. latis, ostiolo prominenter papillato, crassiusculo; sporulis acicularibus, rectis, multiguttulatis, 30.40 × 2.

Hab. in caulibus emortuis Heraclei lanati, Snow Valley Peak, Ormsby Co. Nevada Amer. bor. (C. F. BAKER).

25. Rhabdospora Aegopodii Karst., Acta Soc. pro Fauna et Fl. fenn. 7447 XXVII, 4 (1905) p. 9. — Pycnidiis erumpenti-superficialibus, subsphæroideis, sparsis v. seriatim confluentibus, ostiolo papillato, atris, exiguis; sporulis filiformibus, utrinque attenuatis, continuis, sæpe curvulis, hyalinis, 70-80 × 4.

Hab. ad caules siccis Aegopodii Podagrariæ, in Fennia.
26. Rhabdospora venenosa Speg., Myc. Argent. V, p. 391, in Anal. 7448
Mus. Nac. Buenos Aires XX (1910). — Substrato toto sordide cinerescente sed circa pycnidia sæpius albescente; pycnidiis ligno insidentibus, epidermide tectis, atris, coriacellis, minute ostiolatis, subhemisphæricis, 120-150 μ. diam.; sporulis unciniformibus utrinque acutiusculis, hyalinis, 20-25 × 1.

Hab. ad caules aridos putrescentesque Daturæ Stramonii in arvis La Plata Argentina Amer. austr.

27. Rhabdospora Symphyti Hollós, Ann. Mus. Nat. Hung. VII (1909) 7449 p. 55. — Pycnidiis sparsis, epidermide velatis, suberumpentibus, fuscis, ellipsoideis, 170-210 × 100-140, ostiolo brevi conoideo, contextu celluloso; sporulis acicularibus, rectis v. leviter flexuosis, continuis, hyalinis, 20-30 × 0,5-1.

Hab. in caulibus siccis Symphyti officinalis prope Kecskemét Hungariæ.

28. Rhabdospora Cerinthes Hollós, Ann. Mus. Nat. Hung. VI (1908) <sup>7450</sup> p. 533. — Maculis oblongis, argenteo-griseis; pycnidiis subcutaneis, subcrumpentibus, gregariis, depresso-globosis, fuscis, poro pertusis, 170-190 μ. diam., contextu parenchymatico; sporulis acicularibus, rectis v. nonnunquam leviter flexuosis, continuis, granulosis, hyalinis, 24-30 × 1-1.5.

Hab. in caulibus siccis Cerinthes minoris, Kecskemét Hungariæ.

29. Rhabdospora Cynoglossi Hollós, Ann. Mus. Nat. Hung. V (1907) 7451 p. 462. — Pycnidiis epidermide tectis, gregariis, lenticularibus, fuscis, poro pertusis,  $80\text{--}100~\mu$ . diam., contextu parenchymatico; sporulis filiformibus, rectis v. plerumque leviter curvulis, utrinque acutis, continuis, hyalinis,  $40\text{--}54 \approx 1.5$ .

Hab. in caulibus siccis Cynoglossi officinalis prope Kecskemét Hungariæ.

Rhabdospora Globulariæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 7452
 p. 351. — Pycnidiis epidermide tectis, gregariis, globoso-depres-

sis, nigris, poro pertusis, 100-120  $\mu$ . diam., contextu parenchymatico; sporulis filiformibus, rectis v. leviter curvulis, hyalinis,  $24-30 \approx 1-1,5$ .

Hab. in caulibus siccis Globulariæ Willkommii, prope Kecskemét Hungariæ.

31. Rhabdospora Maireana Sacc. et Trott. — Rhabdospora Globula-7453 riæ R. Maire ad int., Bull. Soc. Myc. de Fr. LV (1908) pag. CLXV, fig. 1, non Hollós. — Pycnidiis superficialibus, subglobosis, levibus, nigris, coriaceis, apice ostiolo minute papillato pertusis, 300-500 μ. diam.; sporulis aciculari-fusoideis, curvatis, utrinque acutis v. acutiusculis, levibus, hyalinis, 1-2-septatis, 11-25 × 1,5-2,5, in sporophoris cylindraceis, pauciseptatis, hyalinis, 15-20 × 1,5-2 acro-v. pleurogenis.

Hab. in caulibus aridis Globulariæ nudicaulis, prope Port de Gavarnie in Pyrenæis.

32. Rhabdospora midzúrensis Bubák et Ranojevic, Ann. Mycol. VIII 7454 (1910) p. 392. — Pycnidiis sparsis, subepidermicis, dein nudis, globosis, parum applanatis, 60-100 μ. diam., nigris, contextu brunneo-olivaceo, tenui præditis, sporulis bacillaribus, 18-22 × 2,5-3, ad apicem fortiter attenuatis, unilocularibus, hyalinis; sporophoris cæspitosis, elongatis, 5-8 × 3,5-4, flavidis.

Hab. in ramis emortuis Androsaces carneæ, Mt. Midzur, 2186 m. alt., Serbia.

33. Rhabdospora Gentianæ Diedicke, Aufzählung Erfurts Microm. 7455 (1910) p. 84. — Pycnidiis solitariis, v. maculis nigris ex hyphis mycelicis subepidermicis fuligineis formatis, 1-5 mm. longis insertis, leviter prominulis, magnitudine variis, 50-150 μ. diam., globosis, nigris, subcarbonaceis, astomis; sporulis acicularibus, utrinque obtusulis, 18-26 × 1, hyalinis, subcontinuis.

Hab. in caulibus emortuis Gentianæ ciliatæ, Arnstadt Germaniæ.

34. Rhabdospora Strasseri Bubák, Ann. Mycol. IV (1906) p. 117. — 7456 Pycnidiis subepidermicis, rotundatis v. ellipsoideis, 200-250 μ. diam., vel usque ad 400 μ. long. 100-200 μ. altis; contextu parenchymatico, extus nigricante intus flavido, parietes 30.45 μ. cr. efformante; sporulis filiformibus, 45-55 × 1,5-2, rectis v. curvulis, utrinque angustatis, 5-septatis; sporophoris breviter papilliformibus.

Hab. in ramis emortuis Betonicæ officinalis, Sonntagberg Austria inf. (Steasser). — A Rh. Betonicæ omnino diversa.

35. Rhabdospora Betonicæ Sacc. et Br. — Syll. X p. 392 — var. 7457 Brunellæ Bres. in Strasser Verh. k. k. zool.-bot. Ges. Wien LX (1910) p. 318. — Pyenidiis subcutaneis, apice erumpentibus, subglobosis, ostiolo conoideo 300-400 μ. latis; sporulis hyalinis filiformibus, flexuosis, v. curvatis, raro rectis, utrinque attenuatis, sed uno latere magis attenuatis, 20-28 × 1-1,5.

Hab. in Brunella vulgari, Sonntagberg Austriæ. — A

typo differt sporulis flexuosis.

36. Rhabdospora Menthæ Strasser, Verh. k. k. zool.-bot. Ges. Wien 7458 LX (1910) p. 317. — Pycnidiis depresse globosis, leniter papillatis, basi hyphis brunneis cinctis; sporulis acicularibus utrinque acutatis, hyalinis, non septatis, non guttulatis, 60-68 ≈ 1,5.

Hab. in caulibus Menthæ silvestris, Sonntagberg, Austriæ

- Socia Sphærella Manthæ Lamb.

37. Rhabdospora clinopodicola Hollós, Ann. Mus. Nat. Hung. IV <sup>7459</sup> (1906) p. 348, tab. VIII, fig. 21. — Pycnidiis epidermide tectis, sparsis, globosis, leviter oblongis, nigris, 350-420 μ. diam., medio ostiolo rotundato 35-42 μ. diam., contextu parenchymatico; sporulis acicularibus, rectis v. leviter flexuosis, utrinque acutatis, granulosis, hyalinis, 64-110 × 2, plerumque 80-90 × 2.

Hab. in caulibus siccis Clinopodii vulgaris prope Kecskemét Hungariæ. — A Rhab. Clinopodii All. et Rh. Bäumleri Sacc. et

Syd. diversa.

38. Rhabdospora Dracocephali Hollós, Ann. Mus. Nat. Hungar. IV <sup>7460</sup> (1906) pag. 349, tab. IX, fig. 36. — Pycnidiis epidermide tectis, gregariis, globulosis, subellipsoideis, nigris, poro pertusis, 130–160 × 100-120, contextu parenchymatico; sporulis filiformibus, curvulis, utrinque obtusatis, granulosis, hyalinis, 30-70 × 1,75-2.

Hab. in caulibus siccis Dracocephali austriaci pr. Kecs-

kemét Hungariæ.

39. Rhabdospora dracocephalicola Hollós, Ann. Mus. Nat. Hung. IV 7461 (1906) p. 349. — Pycnidiis gregariis, superficialibus, globulosis, nigris, 70-90 μ. diam., contextu parenchymatico; sporulis filiformibus, leviter curvulis, hyalinis, 20-30 × 1-1,5.

Hab. in caulibus siccis Dracocephali austriaci pr. Kecs-

kemet Hungariæ.

40. Rhabdospora Orobanches Hollós, Ann. Mus. Nat. Hung. VI (1908) 7462 p. 534. — Pycnidiis gregariis, superficialibus, lenticularibus, atrobrunneis, poro pertusis, 70-100 μ. diam., contextu parenchymatico; sporulis acicularibus, rectis, continuis, hyalinis, 20-32 × 1-1,5.

Hab. in caulibus siccis Orobanches stigmatoidis prope Kecskemét Hungariæ.

41. Rhabdospora Ipomææ Trav. et Spessa, Bol. Soc. Brot. XXV (1910) 7463 p. 183, t. III, f. 23. — Pycnidiis gregariis, minutis, prominulis, globosis vel e globoso conoideis, 80-120 × 80-100, fuligineis, poro distincto pertusis; contextu tenuissimo dilute melleo, sed circa ostiolum crassiusculo et fuligineo; sporulis filiformibus, curvatofalcatis, utrinque obtusis, continuis, 28-35 × 2-21/2.

Hab. in sarmentis languidis I pomææ in horto botanico conimbricensi Lusitaniæ (A. Moller).

42. Rhabdospora Tecomæ Hollós, Növényt. Közlemén. VI (1907) 7464 Extr. p. 6. — Pycnidiis epidermide tectis, dense gregariis, lenticularibus, brunneis, poro amplo apertis, 210-250 μ. diam., contextu parenchymatico; sporulis cylindraceis, rectis v. plerumque subfalcatis, continuis, granulosis, hyalinis, 16-18 × 2.

Hab. in ramis siccis Tecomæ radicantis, Kecskemét Hungariæ.

43. Rhabdospora Veronicæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 7465 p. 352. — Pycnidiis epidermide tectis, gregariis, globoso-depressis v. ellipsoideis, brunneis, poro pertusis, 100-140 μ. diam., contextu parenchymatico; sporulis filiformibus, rectis v. flexuosis, granulosis, 24-45 × 1-1,5.

Hab. in caulibus siccis Veronicæ Chamædrys prope Kecskemét Hungariæ.

44. Rhabdospora Oxycocci Shear, Bull. Torr. Bot. Club XXXIV <sup>7466</sup> (1907) p. 311 et Cranberry Diseas. tab. V, fig. 21-24. — Pycnidis plerumque hypophyllis, sparsis, immersis, plus v. minus irregulariter depresso-globosis, suberumpentibus, 150-225 μ. diam.; ostiolo parvo, applanato, parietibus submembranaceis, bistratosis, collabescentibus; cellulis epidermicis nigricantibus; sporophoris ramosis; sporulis hyalinis, elongato-fusoideis, curvulis, 1-3-septatis v. pseudoseptatis, 20-26 × 2-3.

Hab. in foliis vetustis Vaccinii macrocarpi prope Whitesville N. Jers. Amer. bor.

45. Rhabdospora Demetriana Bubák, Journ. of Mycol. XII (1906) 7467 p. 54. — Pycnidiis caulicolis, in maculis elongatis, argenteo-griseis, sæpe vero nullis, aggregatis, subepidermicis, globoso-depressis, 120-200 μ. diam., nigris, collo sæpe usque ad 22 μ. lato, papillifermi præditis, contextu parenchymatico, 15 μ. circ. cr., castaneo-brunneo, ad apicem fere nigro; sporulis acicularibus, 13-

24 × 1,5-2, rectis v. curvulis, apice angustatis, unilocularibus vel parum distincte uniseptatis, hyalinis; sporophoris papilliformibus.

Hab. in caulibus Asclepiadis verticillatæ, Emma Salina Co. Missouri Amer. bor. (C. H. Demetrio). — A Rh. cynanchica pycnidiis majoribus, sporulis angustioribus diversa.

46. Rhabdospora vincicola Hollós, Ann. Mus. Nat. Hung. V (1907) 7468 p. 463. — Pycnidiis epidermide velatis, gregariis, globosis, nigris, 140-230 μ. diam., ostiolo 70 × 50 epidermidem perforante, contextu parenchymatico; sporulis acicularibus, rectis v. nonnunquam leviter curvulis, continuis, hyalinis, 20-34 × 1,5-1,75.

Hab. in caulibus siccis Vincæ herbaceæ prope Kecskemét Hungariæ. — Rhabdospora Vincæ Oud. est sporulis longioribus diversa.

47. Rhabdospora Vincetoxici Massalongo, Nuove reclute flora mic. veronese p. 10, in Malpighia XX (1906). — Pycnidiis densissime in maculis oblongis et fusco-olivaceis aggregatis, carbonaceis, prominulis 60-80 μ. diam., ostiolo 15-20 μ. lato pertusis; sporulis cylindraceo-fusoideis, continuis, vix utrinque attenuatis, rectis vel interdum curvulis, 12-30 × 2-2,5.

Hab. in pericarpio sicco Vincetoxici officinalis prope pagum Tregnago ex loco «Calavena» Verona, Ital. bor. — Characteribus fere media inter Rh. cynanchicam Sacc. et Rh. Gomphocarpi F. Tassi.

48. Rhabdospora Arnoseridis Lind, Ann. Mycolog. III (1905) p. 429. 7470 — Pycnidiis gregarie sparsis, parvis, subglobosis, epidermide tectis, dein ostiolo erumpentibus et prominentibus, brunneis, 90–100 μ. diam.; contextu parenchymatico; sporulis filiformibus vel acicularibus, rectis v. curvulis, continuis, hyalinis, 28-35 ≥ 1.

Hab. in caulibus emortuis Arnoseridis minimæ, Horsens et Langaa in Jütland Sueciæ.

49. Rhabdospora Saccardiana Oertel, Ann. Mycol. IV (1906) p. 35, 7471 cum icon. — Pycnidiis dense gregariis, punctiformibus, atris, epidermide velatis, globoso-lenticularibus, 100-154 μ. diam., contextu distincte parenchymatico, coriaceo, brunneo; sporulis curvis, 20-38 × 2-2,5, obsolete 3-septatis, hyalinis, obtusis; sporophoris brevissimis.

Hab. in caulibus Tanaceti vulgaris, Sondershausen Thüringen Germania. — Maculæ albo-griseæ indistinctæ.

50. Rhabdospora Absinthii Sacc., in Ann. Mycol. X (1912) p. 317. — 7472 Pycnidiis gregariis subcutaneis, vix erumpentibus, globoso-depres-

sis, 250  $\mu$ . diam., nigricantibus; sporulis bacillaribus, sæpe leniter curvis, utrinque obtusulis, 16-19  $\approx$  1,5, continuis, hyalinis; sporophoris brevibus, paliformibus, stipatis, parum distinctis.

Hab. in caulibus emortuis Artemisiæ Absinthii in Horto Musei agrarii Romæ (D. Saccardo). — A Rhab. Artemisiæ Trail differt pycnidiis majoribus, sporulis nunquam fusoideis et paullo longioribus.

51. Rhabdospora Cirsii Karst. — Syll. III, p. 592. — var. Gnaphalii <sup>7478</sup> Karst., Acta Soc. pro Faun. et Fl. fenn. XXVII, 4 (1905) p. 9. — Pycnidiis sparsis v. subgregariis, subcutaneis, dein erumpentibus, punctiformibus, atris; sporulis filiformibus, continuis, rectis v. curvulis, 40-50 × 1,5.

Hab. in caulibus emortuis Gnaphalii silvatici prope Mustiala Fennia.

52. Rhabdospora punctiformis Karst., Acta Soc. pro Faun. et Fl. fenn. 7474 XXVII, 4 (1905) p. 9. — Pycnidiis gregariis, erumpentibus, punctiformibus, atris; sporulis filiformibus, flexuosis, continuis, usque ad 60 μ. longis, 1 μ. crassis.

Hab. in caulibus aridis Artemisiæ vulgaris prope Mustiala Fenniæ.

53. Rhabdospora Scorzoneræ Hollós, Ann. Mus. Nat. Hungar. VII <sup>7475</sup> (1909) p. 54. — Pycnidiis epidermide velatis, sparsis, globoso-depressis, nigris, poro pertusis, 140-170 μ. diam., contextu celluloso; sporulis acicularibus, rectis v. leviter curvulis, continuis, hyalinis, 22-26 ≥ 1.

Hab. in caulibus siccis Scorzoneræ purpureæ pr. Nagy-Körös Hungariæ.

54. Rhabdospora tanaceticola Bub. et Kab. Hedw. L (1909) p. 42. — 7476 Pycnidiis sparsis, subinde confertis v. seriatis, 100-150 μ. diam., lenticularibus depressis, nigris, subcutaneis, poro papillato excentrico nigro dehiscentibus; contextu atro-brunneo parenchymatico; sporulis copiosis, filiformibus, 20-42 ≈ 2,5-3, curvulis vel arcuatis, raro rectis, utrinque tenuatis sed rotundatis, initio continuis, dein 3-septatis, hyalinis v. chlorinis.

Hab. in caulibus emortuis Tanaceti vulgaris, socia Leptosphæria dolioloide, pr. Münchengrätz Bohemiæ. — A Rhab. Tanaceti sporulis multo minoribus differt.

55. Rhabdospora Baccharidis Hollós, Ann. Növényt. Közlemén. VI 7477
 (1907) Extr. p. 5. — Pycnidiis epidermide tectis, gregariis, lenticularibus, fuscis, poro pertusis, 200-250 μ. diam., contextu paren-

chymatico; sporulis cylindraceis, utrinque rotundatis, curvulis, continuis, granulosis, hyalinis,  $18-22 \approx 3-4$ .

Hab. in ramulis emortuis Baccharidis halimifoliæ, Keeskemét Hungariæ.

56. Rhabdospora Chrysanthemi Hollós, Ann. Mus. Nat. Hungar. IV 7478 (1906) p. 348. — Pycnidiis epidermide tectis, gregariis, lenticularibus, fuscis, poro pertusis, 140-170 μ. diam., contextu parenchymatico; sporulis acicularibus, rectis v. leviter curvulis, interdum obscure 3-septatis, granulosis, hyalinis, 36-52 × 2-2,5.

Hab. in caulibus siccis Chrysanthemi indici Kecskemét Hungariæ.

57. Rhabdospora insulana Saccardo, Fungi aliquot africani, Bol. Soc. 7479 Broteriana XXI (1904-1905) p. 8. — Pycnidiis dense late gregariis, perexiguis, subcutaneis, dein erumpentibus, globoso-lenticularibus, nigris, 90-100 μ. diam., poro minuto pertusis; sporulis filiformibus, leviter flexuosis, 35-55 × 1, continuis, hyalinis.

Hab. in caulibus emortuis Lactucæ nudicaulis in ins. S. Thiago, Cabo Verde, Afr. (Communic. A. Moller). — Ab affini Rh. Lactucarum (Schw.) Starb. differt minutie pycnidiorum, ostiolo non umbilicato, macula fibrillosa nulla.

58. Rhabdospora Taraxaci-officinalis Atkins., Ann. Mycol. VI (1908) 7480 p. 59. — Pycnidiis sparsis v. aggregatis, membranaceis, minutis, atris, 50-60 μ. latis, ostiolo leviter erumpente; sporulis minutis, rectis v. leviter curvulis, saltem 1-septatis, 20-25 × 1-1,5.

Hab. ad folia emortua Taraxaci officinalis Ithaca New York America bor.

59. Rhabdospora Kochiæ Hollós, Ann. Mus. Nat. Hung. IV (1906) 7481 p. 351, tab. VIII, fig. 18. — Pyenidiis epidermide tectis, sparsis, globoso-depressis, atro-brunneis, poro amplo apertis, 160-210 μ. diam., contextu parenchymatico; sporulis cylindraceis, æqualiter crassis, utrinque obtusatis, rectis v. plerumque subfalcatis, granulosis, hyalinis, 18-24 × 3-3,5.

Hab. in caulibus siccis Kochiæ arenariæ prope Kecskemét Hungariæ.

60. Rhabdospora Humuli Hollós, Ann. Mus. Nat. Hungar. V (1907) 7482 pag. 52. — Pycnidiis epidermide tectis, sparsis, globoso-depressis, fuscis, poro pertusis, 140-180 μ. diam., contextu parenchymatico; sporulis filiformibus, rectis v. plerumque curvulis, granulosis v. obscure 7-septatis, hyalinis, 44-64 \* 1,5.

Hab. in caulibus siccis Humuli Lupuli prope Kecskemét Hungariæ.

61. Rhabdospora maculicola Voglino, in Annali R. Accad. Agricult. 7488 Torino LIII 1910 (1911) p. 370. — Maculis griseis, albicantibus, rotundis, ellipticis v. irregularibus, margine sinuatis, 4-8-10 mm. latis, rarissime confluentibus, 12-16-18 mm. latis; pycnidiis prominentibus, minutis, 70-80 μ. latis, globosis, poro pertusis, excipulo levi, brunneo-olivaceo; sporulis filiformibus, curvis, flexuosis, continuis, hyalinis, 12-16 rar. 18 × 0,5; sporophoris brevissimis.

Hab. in ramis corticatis Populi canadensis, La Mandria, Venaria Reale, in Pedemontio Ital. bor.

62. Rhabdospora Ephedræ Speg., Myc. Arg. V, p. 390, in Ann. Mus. 7484
Nac. Buenos Aires XX (1910). — Maculis nullis sed ramulis infectis totis cinereo-albicantibus; pycnidiis pauci-gregariis epidermide tectis, sublenticularibus, 100-120 μ. diam., obsolete ostiolatis, glabris, contextu indistincto; sporulis linearibus utrinque attenuato-subacutatis, arcuatulis, 35-40 × 2-3, multiguttulatis hyalinis.

Hab. ad ramulos emortuos et aridos Ephedræ americanæ in montanis Potrerillos prope Mendoza Argentina Amer. austr.

63. Rhabdospora Phænicis Alm. et Cam., Rev. Agron. V (1907) 7485 p. 21, tab. I, fig. 34; Bol. Soc. Brot. XXV (1908-1909), Extr. p. 55. — Pycnidiis primo epidermide tectis, demum erumpentibus, solitariis, lenticularibus, nigris, 180-270 × 130-180; sporulis curvulis, raro rectis, filiformibus, utrinque attenuatis, continuis, hyalinis, 19-23 × 1.

Hab. in ramis siccis Phænicis reclinatæ prope Povoa de Lanhoso Lusitania (BALTH. DE MELLO).

64. Rhabdospora Antherici Hollós, Ann. Mus. Nat. Hung. VIII (1910) 7486
p. 7. — Pycnidiis dense gregariis, epidermide velatis, atris, 100–130 μ. diam., contextu celluloso; sporulis cylindraceis, utrinque rotundatis, leviter curvulis, 3-septatis, hyalinis, 70-90 × 3-3,5.

Hab. in caulibus siccis Antherici Liliaginis prope Nagy-Körös Hungariæ.

- 65. Rhabdospora groenlandica J. Lind, Vidensk.-Selskab. Skrift. Math.- 7487
  Naturw. Kl. Christiania (1909) n. 9, Extr. p. 14 et Micromycetes from North-East Groenlandia, Kobenhavn (1910) p. 159. Syn. Septoria nebulosa Rostr. Syll. X, p. 385 non Rhabdospora nebulosa (Desm.) Sacc. Syll. III, p. 589.
- 66. Rhabdospora antarctica Speg., Myc. Argent. V, p. 390, in Anal. 7488 Mus. Nac. Buenos Aires XX (1910). Maculis nullis, sed ma-

trice suberosula; pycnidiis pauci gregariis, epidermide tectis, subcarbonaceis, atris, ostiolatis, globoso-depressis, 75-90  $\mu$ . diam., glabris, opacis, contextu indistincto; sporulis bacillaribus, utrinque rotundato-subtruncatis,  $12-16 \approx 2-3$ , continuis v. 1-septatis, hyalinis.

Hab. ad ramulos vivos thalli Theloschystidis cujusdam in scopulosis antarcticis Nuevas Orcadas Argentina Amer. austr.

- PSEUDOSEPTORIA Speg., Myc. Arg. V, p. 388, in Anal. Mus. Nac. Buenos Aires XX (1910) (Etym. pseudes falsus et Septoria). Pycnidia superficialia astoma; sporulæ fusoideæ, continuæ v. pauciseptatæ, hyalinæ.
- 1. Pseudoseptoria donacicola Speg., l. c. p. 388, cum icon. Marculis ellipticis, 1-2 mm. diam., albis, areola angusta purpurascente obsoleta cinctis; pycnidiis superficialibus, paucis, globosis, 80-90  $\mu$ . diam., glabris, tenuiter membranaceis, laciniatim dehiscentibus, contextu eximie parenchymatico olivaceo; sporulis plus minusve arcuatis, utrinque acutissimis,  $25 \times 4$ , continuis vel 1-3-septatis, hyalinis.

Hab. ad folia languida Arundinis Donacis in insula Santjago prope La Plata Argentina Amer. austr.

PHLYCTÆNA M. et D. — Syll. III p. 593, X p. 400, XI p. 550, XIV p. 986, XVI p. 981, XVIII p. 403.

1. Phlyctæna? linicola Speg., Myc. Argent. V, pag. 389, in Anal. 7490 Mus. Nac. B. Aires XX (1910). — Partibus infectis primo lutescentibus serius pallescenti-arescentibus; pycnidiis cortice vel parenchymate innatis, epidermide tectis, numerosis, primo fulvescentibus, subincompletis, minute ostiolatis, lenticularibus, 75-100 μ. d.; sporulis e cylindraceo subfusoideis, non v. lenissime curvulis, eguttulatis, 20-30 × 1,5-3.

Hab. ad folia caulesque Lini usitatissimi morbum vulgo « pasmo » vocatum efficiens, vulgata in campis prope La Plata Argentina America austr.

2. Phlyctæna Hyperici Hollós, Ann. Mus. Nat. Hungar. IV (1906) 7491 p. 353, tab. VIII, fig. 17. — Pycnidiis epidermide tectis, sparsis, nigris, poro pertusis, ellipsoideis, 450-700 × 300-400, contextu parenchymatico; sporulis cylindraceis, apice semper curvatis, deorsum rectis, continuis, hyalinis, 22-30 × 1-1,5.

Hab. in partibus inferioribus caulis aridi Hyperici perforati, prope Kecskemét Hungariæ.

3. Phlyctæna phomatella Sacc. — Syll. III, p. 594 — fm. Sophoræ 7492 Ferr., Malpighia XX (1906) p. 149. — Sporulis hyalinis 24-28 × 1,2-1,5, flexuosis, hamatis.

Hab. in ramis siccis Sophoræ pendulæ, Alba Pedemontii, Italia bor.

4. Phlyctæna? halophila Spegazz., Myc. Argent. V, p. 389, in Anal. 7498 Mus. Nac. Buenos Aires XX (1910). — Foliis et vagina primum albo-maculatis, mox totis aridis albescentibus, serius ostiolis atropunctulatis, per ætatem irregulariter rimosis; pycnidiis parenchymate innatis, primo globulosis, 80-100 μ. diam., dein e mutua pressione subconfluentibus et lineolas breves fuscas epidermide tectas efficientibus, carnosulis, obsolete ostiolatis, fuscidulis; sporulis arcuatis, utrinque attenuatis, 18-20 × 2-3,5, superne acutioribus continuis, hyalinis.

Hab. ad vaginas et folia viva v. arida Hordei halophili prope Santa Maria prov. Cordoba, Argentina Amer. austr.

- CHÆTOPHIOPHOMA Speg., Myc. Argent. V, p. 388, in Anal. Mus. Nac. Buenos Aires XX (1910) (Etym. chæte seta, ophis anguis et Phoma, h. e. Chætophoma scolecospora). Pycnidia minuta, atra, subglobosa, superficialia, subiculo olivaceo insidentia; sporulæ aciculares v. filiformes, continuæ v. septulatæ, hyalinæ. Est Chætophoma sporulis vermicularibus prædita.
- 1. Chætophiophoma Tremæ Speg., l. c. pag. 388. Plagulis primo 7494 orbicularibus dein confluendo difformibus, 2-10 mm. diam., tenuiter fibrillosis, arctiuscule matrici adnatis, ex hyphis gracilibus, 4-6 μ. cr., dense alterne ramulosis septulatisque hyphopodiis parcis obovatis alternis ornatis constitutis; pycnidiis globosis, 50-75 μ. diam., superne parenchymaticis olivaceis persistentibus, deorsum hyalinis fluxilibus, astomis, membranaceis; sporulis utrinque attenuatis, acutiusculis, arcuatis, 25-30 × 1,5-2, fasciculatis, continuis, levibus multiguttulatis.

Hab. ad folia viva Tremæ micranthæ prope Puerto Léon Misiones Argentina Amer. austr.

#### COLLONEMA Grove — Syll. X p. 397, XVI p. 981.

Collonema levissimum Karst., Acta Soc. pro Faun. et Fl. fenn. 7495
 XXVII (1905) 4, p. 10. — Pyenidiis membranaceis, sphæroideis, superficialibus, glabris, atris, nitentibus, minutis; sporulis fusoideo-cylindraceis, continuis, hyalinis, 8-12 × 1; sporophoris tenellis.

Hab. in radice emortua Myrtilli in regione Kuopioënsi, Kotkankallio (О. Lönnboнм).

2. Collonema roseum v. Höhnel, Fragm., z. Mykol., Sitzb. k. Ak. d. 7496 Wiss. Wien, Bd. CXVI, Abt. I (1907) p. 143. — Pycnidiis superficialibus, sparsis, opace brunneo-nigris, coriaceo-membranaceis, plerumque elongatis, 500-600 × 150-200, breviter papillato-ostiolatis, extus subrugulosis, basi hyphis 4 μ. cr., supra præcipue ad ostiolum setulis obtusis brunneo-nigris, apice pallidioribus, 40-80 × 4 præditis; parietibus stratu externo brunneo-nigro, 20-25 μ. cr., interno hyalino v. subhyalino, sporophoris 20 × 1, hyalinis, simplicibus tecto; nucleo roseo; sporulis hyalinis, rectis v. subcurvulis, cylindraceis, apice subacutatis, 4-5-guttulatis, continuis, 12-16 × 1,5-2.

Hab. in iligno fagineo putri, Pfalzberg pr. Pressbaum, Austria.

MICROPERA Lév. — Syll. III p. 604, X p. 404, XI p. 551, XIV p. 987, XVIII p. 404.

Micropera ampelina Sacc. et Fairm. in Saccardo, Microm. Amer. 7497 novi, Journ. of Myc. XII (1906) p. 49. — Pycnidiis sparsis vel seriatis, erumpenti-superficialibus, inæqualiter globosis, astomis, ceraceo-membranaceis, olivaceis, albo-furfuraceis, 700 μ. diam., basi stipitiformi crassa, 400 μ. longa immersa præditis, intus albidofarctis, excipulo minute celluloso, strato proligero crasso dilute olivaceo; sporulis tereti-fusoideis, curvis, utrinque obtusulis, 28-30 × 7,5-8, farctis, hyalinis; sporophoris bacillaribus 15 × 2-5, hyalinis.

Hab. in ramulis nondum emortuis Vitis viniferæ, Ridgway, Orleans Co, N. Y., Amer. bor. — A ceteris generis speciebus probe distincta. Furfur a granulis crystallinis refringentibus constat. Sporulæ initio ellipsoideæ rectiusculæ, 10-11 ≥ 4-5.

MICROPERELLA v. Höhn. Fragm. Mykol. VII (1909) p. 67 (Etym. a Micropera, cujus analogum genus). — Stromata superficialia, extus carbonacea, intus carnosa, basi medio tantum adfixa; pycnidia late insidentia, globosa, ostiolata, racemoso-conferta; sporophora simplicia v. cæspitoso-ramosa; sporulæ fusoideæ, 2-pluriloculares.

Microperella Quercus v. Höhn. l. c. — Ostiolum usque ad 90 μ. 7498
 lat.; sporophora brevia; sporulæ fusoideæ, 2-4-cellulares, 25-36 ×
 5-8, e flavido hyalinæ, intus oleoso-granulosæ.

Hab. in foliis Quercus glaucæ in Japonia (Yoshinaga). — Syll. Fung. XXII (V-1913)

Status pycnid. Yoshinagaiæ P. Henn. cujus, teste v. Höhn. asci maturi nondum observati sunt.

- SPHÆROGRAPHIUM Sacc. Syll. III p. 596, X p. 401, XVIII p. 404.
- 1. Sphærographium petiolicola Karst., Acta Soc. pro Fauna et Fl. 7499 fenn. XXVII, 4 (1905) pag. 15. Pycnidiis sparsis v. gregariis, conoideis, fusco-atris, minutissimis; sporulis elongato-fusoideis, curvulis, 8-16 × 2.

Hab. in petiolis emortuis Sorbi aucupariæ prope Kuopio Fennia (Lönnbohm).

- DILOPHOSPORA Desm. Syll. III p. 600, XVIII p. 405. Cfr. Journ. of Mycol. (1906) p. 57.
- Dilophospora graminis Desm. Syll. III, pag. 600 fm. Holci 7500 Fuck. Symb. mycol. p. 130, Dilophospora Holci Fuckel, Bot. Zeitg. (1861) p. 250, tab. X, fig. 5. Pycnidiis rotundis, nigris, 250 μ. diam., immersis, crustula nigra tenui tectis, inter nervos seriatis, poro albido pertusis, pustulatim prominulis, in macula flavida immarginata sitis; sporulis numerosis, cylindraceis, curvulis, continuis, 4-nucleatis v. (simulate?) 3-4-septatis, non constrictis, utrinque setularum interdum furcatarum fasciculo auctis.

Hab. in vaginis foliisque Holci lanati prope Oestrich Rhenogovia.

2. Dilophospora chilensis Speg., Fungi Chilenses (1910) p. 170, cum <sup>7501</sup> icon. — Pycnidiis innato-erumpentibus, e lenticulari hemisphæricis, sparsis v. inordinate, gregariis, atris, glabris, coriacellis 80-100 μ. diam.; sporulis hyalinis subcylindraceis, apice altero abrupte obtuseque rotundato altero attenuato-acutato, 28-32 × 4, parte obtusa biciliata, ciliis 5-7 × 1, parte acuta cilio altero acrogeno altero laterali, primo continuis serius tetrablastis v. 3-septatis.

Hab. in culmis emortuis Hierochloæ utriculatæ prope Ciudad de Valdivia Chile Amer. austr.

## SEPTOSPORIELLA Oud. - Syll. X p. 403.

Septosporiella atrata (Rob.) Sacc., Notæ myc. VIII, Ann. Myc. 7502
 v. IV (1906) p. 493, tab. X, fig. 12, Septoria atrata Roberge in herb. Mus. Paris. ined. et absque diagnosi. — Stromatibus laxe gregariis v. sparsis, longitudinaliter oblongis, depresse pulvinatis, nigricantibus, epidermide atrata tectis, 2-4 mm. longis, 1-1,5 mm.

lat., intus nigricantibus; loculis seu pycnidiis globoso-lenticularibus, 250  $\mu$ . latis, vix 100  $\mu$ . cr., intus farctis, albis, in stromatis superficie paullulum protuberantibus; sporulis filiformi-bacillaribus, 40–50  $\approx$  1, rectiusculis, utrinque obtusulis, minute multiguttulatis, hyalinis.

Hab. in caule emortuo Malvæ silvestris, Caen Galliæ (Roberge, comm. P. Hariot).

CYTOSPORINA Sacc. — Syll. III p. 601, X p. 347, XI p. 537, XIV p. 966, XVIII p. 375.

Cytosporina Yerbæ Speg., Anal. Mus. Nac. Buenos Aires t. XVII 7508 (1908) p. 137. — Stromatibus elliptico-difformibus, depressis, 2-6 mm. diam., tuberculiformibus, intus cinereis extus atris, gyrose loculigeris; sporophoris tenuissimis filiformibus, hyalinis, 20-30 × 0,75-1, monosporis; sporulis sigmoideis arcuatis, utrinque acutis, hyalinis, continuis, 20-25 × 0,75-1.

Hab. vulgata ubique ad ramulos dejectos putrescentes Ilicis paraguariensis, Misiones, Argentina.

2. Cytosporina Halimi Maubl., Bull. Soc. Mycol. Fr. XXIII (1907) 7504 pag. 144, tab. XX, fig. 19-20. — Pycnidiis immersis, epidermide hine nigrificata tectis, ostiolo paululum prominulis, intus 2-3-locularibus, septis transversalibus, sæpe incompletis divisis; stromate dilute colorato; sporulis filiformibus, hyalinis, curvulis, continuis v. obsolete septatis, 28-32 × 2; sporophoris brevibus.

Hab. in ramis emortuis Atriplicis Halimi, Pornic Loire Inf. Gallie.

3. Cytosporina Feurichii Bubák, Ann. Mycol. IV (1906) p. 118. — 7505 Stromatibus ex elongato ellipsoideis, sæpe longitudinaliter confluentibus, depressis, in ligno superficialiter nigrefacto nidulantibus, 200-250 μ. latis, nigris, stellatim apertis, intus parietibus indistinctis pallidioribus præditis; sporulis filiformibus, variabilibus, plerumque fortiter incurvatis, raro rectis, 45-75 × 0,75-1, hyalinis; sporophoris filiformibus cæspitosis, hyalinis.

Hab. in ligno decorticato Salicis sp. prope Göda Saxonia (Feurich).

#### ERIOSPORA B. et Br. - Syll. III p. 600, XIV p. 987.

1. Eriospora hypsophila Speg., Myc. Argent. V, pag. 391, in Anal. 7506 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis deter-

minatis, sæpius rotundatis, 1-2 mm. diam., areola angusta purpurascente cinctis inferne cinereis superne albescentibus; pycnidiis paucis epiphyllis epidermide tectis, 75-90 µ. diam., minute ostiolatis, membranaceis, contextu fuligineo parenchymatico parum distincto; sporulis rectis v. leniter sigmoideis, 35-45 × 1,5-2; sporophoro concolori recto, 5-10 × 1,5, geminatim v. ternatim suffultis, continuis.

Hab. ad folia viva Polylepidis racemosæ in alpinis Jujuy, Argentina Amer. austr.

2. Eriospora pircunicola Speg., Myc. Argent. V, pag. 391, in Anal. 7507 Mus. Nac. Buenos Aires XX (1910). — Stromatibus minutis innato-erumpentibus atris, laxe gregariis, subcarbonaceis, lenticularidepressis, 300-500 μ. diam., contextu indistincto; loculis paucis globosis 50-100 μ. diam., albo-farctis; sporophoris bacillaribus simplicibus, 30 × 1, rectis, hyalinis; sporulis ternatis sigmoideis arcuatis v. uncinatis, utrinque acutiusculis, 25 × 1, hyalinis.

Hab. ad ramos dejectos putrescentes Pircuniæ dioicæ in Silva Santa Catalina prope Buenos Aires, Argentina Amer. austr.

## Fam. 2. Nectrioidaceæ Sacc.

# Sect. 1 Hyalosporæ

**ZYTHIA** Fr. — Syll. III p. 614, X p. 404, XI p. 552, XIV p. 988, XVI p. 983, XVIII p. 408.

1. Zythia seminicola P. Henn, in Hedw. XLV (1905) p. 33. — Pyc- 7508 nidiis sparsis v. aggregatis, subsuperficialibus, globulosis, papillatis, ceraceo-molliusculis, succineis, 80-120 p. cr.; sporulis oblongis utrinque obtusiusculis, rectis v. curvulis, 2-guttulatis, continuis. hyalinis,  $5-8 \approx 2^{1}/_{9}-3$ .

Hab. in seminibus Viciæ silvaticæ, Michailowskoë Rossiæ.

2. Zythia valparadisiaca Speg., Fung. Chilenses (1910) p. 171. — 7509 Pycnidiis ligno denudato subiculoque (an heterogeneo?) tenuissimo araneoso insidentibus, globulosis, 90-120 µ. diam., fulvellis, tenuissime membranaceis, glabris, minute ostiolato-perforatis; sporulis minutissime cylindraceo-ellipsoideis, rectis v. curvulis, utrinque rotundatis, 3-4 × 1, sæpe biguttulatis, hyalinis.

Hab. in ramis emortuis siccis Lobeliæ salicifoliæ, Cerro Alegre de Valparaiso, Chile Amer. austr.

- 3. Zythia occultata Bres. in Strasser Verh. k. k. zool.-bot. Ges. 7510 Wien LX (1910) p. 321. Pycnidiis astomis, dein lacerato apertis, superficialibus, subglobosis, subcervinis, membranaceis, contextu distincte prosenchymatico, 200-400 μ. diam.; sporulis hyalinis falcatis, 24-39 × 6-8, sporophoris filiformibus, 25-45 × 3-4 suffultis.
  - Hab. in cortice dejecto Fraxini, Sonntagberg Austrie. Sociun adest Sphæronæma parabolicum. Incertum est utrum ad gen. Zythiam pertineat, an potius ad Microperam vel etiam ad Excipulaceas.
- 4. Zythia cæruleo-atra v. Höhnel, Sitzb. k. Ak. d. Wiss. CXVII 7511 (1908) Abt. I, p. 1022. Pycnidiis sparsis, superficialibus, nigris, subcyanescentibus, globosis, siccis depressis, molli-carnosis, 250-350 μ. diam.; contextu tenui, membranaceo-carnoso, molli, sordide griseo-cyaneo, plectenchymatico, ex hyphis ramosis, 3-4 μ. cr., parietibus firmis præditis constituto; ostiolo minuto rotundato; sporophoris hyalinis, filiformibus, simplicibus, 12-15 × 1-1,5; sporulis singulis acrogenis, subhyalinis, griseo-cyaneis, unilocularibus, elongatis, rectis v. curvulis, 3-5 × 1,5-2.

Hab. in ligno dejecto Carpini Betuli, Sattelberg prope Pressbaum Austriæ.

5. Zythia muscicola v. Höhn., Sitzb. k. Ak. d. Wiss. Wien CXV 7512 Abt. I (1906) p. 27. — Pyenidiis globosis, sparsis v. parce gregariis confluentibusque, 80-200 μ. diam., tenui-membranaceis, sordide obscure violaceis, plerumque immersis et ostiolo papilliformi nigro depresso prominulis, levibus, hyphis tenuibus hyalinis v. pallide violaceis circumdatis, ostiolo 10-12 μ. lato; sporulis in cirrum hyalinum projectis, hyalinis, plerumque breviter cylindraceis, 4-5 × 1,5.

Hab. in capsulis siccis Orthotrichi fastigiati prope Allensberg Austriæ inf. (Schiffner).

# SIROZYTHIA v. Höhn. - Syll. XVIII p. 410.

Sirozythia olivacea v. Höhn. Fragm. zur. Myk. XI (1910) p. 37. 7513
 — Pycnidiis gregariis primum immersis et epidermide tectis, globosis, astomis, demum prominentibus, rotundato-apertis, 500 μ. latis, 300 μ. altis; contextu tenui-carnoso, hyalino, levi, infra circ.
 10 μ. supra usque ad 20 μ. cr. fibroso-parenchymatico; sporopho-

ris crebris parallele dispositis,  $40-60 \approx 1.5$ , simplicibus, hyalinis, apice pallide viridi-olivaceis et sporulas catenulatim efformantibus; sporulis solitariis subhyalinis, in massa obscure olivaceo-viridibus, cylindraceis, apice obtusis, rectis,  $3-5 \approx 2$ , demum conglutinatis.

Hab. in ramis Berberidis vulgaris prope Krems in Austria Inferiori.

- ELEUTHEROMYCELLA v. Höhnel Fragm. zur. Mykol. V, in Sitzb. k. Ak. d. Wiss. Wien CXVII (1908) Abt. I, p. 1023 (Etym. Eleutheromyces \*) quocum analogiam habet). Pycnidia globosa v. oblonga, carnoso-membranacea, mollia, erostrata, primo innata, dein erumpentia, ostiolata; contextu distincto parenchymatico. Sporulæ fusoideæ, utrinque ciliatæ, continuæ, sporophoris longis simplicibus v. e basi ramosis suffultæ.
- 1. Eleutheromycella mycophila v. Höhnel, Sitzb. k. Ak. d. Wiss. 7514 Wien CXVII (1908) Abt. I, p. 1023. Pycnidiis globosis, 300-600 μ. diam., nigricantibus (ab initio?), innato-erumpentibus v. subsuperficialibus, basi coarcatis subinde usque ad 800 μ. altis, papilla conica et poro 40-50 μ. diam. præditis; contextu subcarnoso 35 μ. crasso, e cellulis 6-8 μ. diam. angulosis, atro-brunneis formato; sporophoris 50 × 1,5-2; sporulis acro-pleurogenis fusoideis, 8-11 × 1,3-1,5, raro 10 × 1,7, setula infera brevi, supera 24-40 μ. longa præditis, minute guttulatis.

Hab. in pileo et hymenio Polysticti versicoloris, Wienerwald Austriæ.

- RHODOSTICTA Woronichin in Bull. Jardin bot. imp. St. Pétersb. XI (1911) p. 13 (Etym. rhodon rosa et stictos punctatus). A gen. Polystigmina differt stromate tenuiore et sporulis cylindraceis, brevibus (latitudine duplo longioribus) nec aciculari-filiformibus.
- 1. Rhodosticta Caraganæ Woronichin l. c. Stromatibus plerum- 7515 que amphigenis, sparsis v. totum folium occupantibus, pallide roseis v. roseo-ochraceis, rarius albidis; pycnidis immersis, globo-

<sup>\*)</sup> Quoad *Eleuteromycetem subulatum*, cum ascos ei tribuant præter me quoque cl. Winter, Schröter, Ellis et Everhart etc., contra sententiam v. Hohnelii (Cfr. l. c.) fieri potest ut reapse de formis diversis, nempe ascophora et pyonidica, agatur.

sis,  $40.60 \mu$ . diam. v. oblongis,  $60-80 \approx 40.50$ , amphigenis; contextu subescenti; sporulis brevibus oblongo-bacillaribus, 5 × 2-2,5, continuis, hvalinis.

Hab in foliis vivis Caraganæ fruticis, Samara et Ufa Rossiæ (E. Ispolatov et I. Sivaevskij). — Sistit pycnidium Woronichinæ Caraganæ.

ASCHERSONIA Mont. - Syll. III p. 619, X p. 408, XI p. 522, XIV p. 989, XVI p. 984, XVIII p. 411.

1. Aschersonia Jacarandæ Speg., Myc. Arg. V, p. 456, in Anal. Mus. 7516 Nac. Buenos Aires XX (1910). — Stromatibus sparsis superficialibus facile deciduis, subsuberosis subhemiphæricis, 1-2 mm. diam., pruinulosis, inordinate punctato-impressis; loculis difformibus 150-200 µ. diam., nucleo succineo compacto farctis; sporulis ellipsoideis, ambitu costato-marginatis, utrinque conoideo-appendiculatis,  $14 \times 4.5$ , sine appendicibus  $5.6 \times 4$ , hyalinis, eguttulatis, levibus.

Hab. ad folia viva Jacarandæ Carobæ prope Puerto León Misiones Argentina Amer. austr. — A ceteris speciebus differre videtur etiam quia ut videtur, non entomophila.

2. Aschersonia Eugeniæ Koord., Botan, Untersuch. Java (1907) p. 214, 7517 fig. 31. - Stromatibus carnosis, amphigenis v. ramicolis, aurantiacis, semiglobosis, 1 mm. latis; sporulis continuis, hyalinis, fusoideis, rectis, utrinque acutis, 10-12 × 3-3,5; sporulis filiformibus continuis 12-17 µ. longis, paraphysibus destitutis.

Hab. parasitice in Coccidiis ad folia viva et ramulos Eugeniæ cymosæ prope Sapuram prov. Kedu Java et Eugeniæ polyanthæ prope Penunggalan (Koorders).

3. Aschersonia tephrosicola P. Henn., in Fl. du Bas. et Moy. Congo, 7518 v. II, fasc. III (1908) p, 228. — Stromatibus in Lecaniis parasitantibus, hypophyllis, singularibus, pulvinato-discoideis, fusco-castaneis, rugulosis, margine radiato-repandis, 2-4 mm. diam., loculis immersis subovoideis; sporulis fusoideis, acutis 3-4 guttalatis, hyalinis  $8-10 \times 1,5-2$ , filis hyalinis  $40-60 \times 1-1,5$  intermixtis.

Hab. in Lecanio ad folia Tephrosiæ sp., Hindu Congo Africa (VANDERYST).

4. Aschersonia Henningsii Koord., Botan. Untersuch. Java (1907) p. 7519 213, fig. 30. — Stromatibus carnosis, epiphyllis, subsolitariis, pulvinatis, purpureis, intus pallidioribus, 0,7 mm. diam.; pycnidiis peripherice immersis, remotiusculis, pallide fuscellis, poro circulari

ampliusculo non emergente apertis; sporulis, creberrimis, falcatofusoideis, initio continuis, dein distincte 3-4-septatis, hyalinis, utrinque acuminatis,  $50-65 \times 4-5$ ; sporophoris longe cylindraceis v. bacillaribus, indivisis, hyalinis,  $15-25 \times 3$ ; paraphysibus continuis, indivisis  $120-200 \times 4$ , intermixtis.

Hab. parasitice in Coccidiis viventibus in foliis Litsoæ amaræ prope Penunggalam prov. Kedu Java (Koorders).

5. Aschersonia lauricola Speg., Myc. Arg V, p. 457, in An. Mus. 7520 Nac. Buenos Aires XX (1910). — Stromatibus sæpius epiphyllis nervisedis, globoso-depressis, 1-3 mm. diam., inferne coarctatis et cingulo loculigero cinctis, superne ruga concentrica infossa etiam loculigera ornatis, subsuberosis, extus rubris intus albis, loculis inferis amorphis superis globosis 100-150 μ. diam.; sporulis cylindraceo-fusoideis utrinque acutis 6-8 × 1,5, hyalinis levibus.

Hab. ad corpora emortua Cocci (Aleurodes?) cujusdam ad folia viva Phæbes in silvis Jujuy, Argentina Amer. austr. (A. Rimbach). — Secund. Cl. Spegazzini Aschersoniæ certe Hypocrellarum status pycnidicos sistunt et non in vegetabilibus sed in Coccis sine dubio ullo parasitantur.

6. Aschersonia pisiformis Patouill., Bull. Soc. Mycol. Fr. XXII (1906) 7521 p. 59. — Stromate globoso, fusco-olivaceo nigrescenti, 2-5 mm. diam., inferne marginato; contextu albo, indurato, ex hyphis latis crasse tunicatis; pycnidiis immersis, sparsis, globoso-ovoideis, circiter 200 μ. latis; sporulis hyalinis, fusoideis, eguttulatis, utrinque acutis, 6-8 × 1-1,5.

Hab. in corpore emortuo Cocci sp. ad folia Cocos nuciferræ, Taravao Polynesia.

## MUNKIA Speg. — Syll. X p. 408.

1. Munkia guaranitica Speg., Myc. Argent. V p. 392, in An. Mus. 7522 Nac. Buenos Aires XX (1910). — Stromatibus candidis subcaseosis compactiusculis subglobosis, usque ad 5-10 cm. diam.; pycnidis v. loculis peripherice dense constipatis fere corticem efformantibus, monostichis, globosis, 100 μ. diam., tenuissime membranaceis contextu ochroleuco subindistincto, ostiolo minuto rotundo impresso perforatis; sporulis subellipsoideis, 5-7 × 2,5-3, continuis eguttulatis hyalinis.

Hab. ad ramos vivos Merostachydis argyronemæ in silvis prope Rio San Antonio, Misiones, Argentina Amer. austr. — Gen. Munkia Speg., biophilum bambusicola, statum imper-

fectum *Mycomali* Moell. et affinuim sistit, a *Glaziella* Brk. saprophilo toto cælo recedens nec quidem comparandum. — Stromata in ramulis pleurogena sæpe pugni magnitudine æquantia panem biscoctum in mentem revocantia, ab incolis inde «galleta de macaco» vocata.

- PSEUDOPATELLINA v. Höhnel Fragm. z. Myk. V, in Sitzb. k. Ak. d. Wiss. Wien CXVII (1908) Abt. I, p. 1025 (Etym. pseudes falsus et Patellina). Pycnidia immersa, erumpentia, mollia pallida, carnoso-membranacea, denique superne fissa et tunc navicularia; sporophora totum pycnidium implentia longe filiformia, ramoso-anastomosantia; sporulæ continuæ, minutæ, hyalinæ, subovatæ, pleurogenæ. An Dacrymycetellæ Bizz. affine genus?
- Pseudopatellina conigena (Niessl.) v. Höhn. l. c., Dacrymyces co-7528 nigena Niessl, ad interim, in Rab. Wint. F. Europ. N. 2628, Pactilia strobilicola (Kalehbr.) Sacc. Syll. IV p. 614. Charact. generis; sicca griseo-brunneola, 400-500 μ. diam., sporophoris filiformibus, 1,5-2 μ. cr.; sporulis ellipsoideis, 2,5-3 × 1,5-1,7, hyalinis, extus mucosis.

Hab. in conis Pini silvestris pr. Brünn Moraviæ.

## Sect. 2. Hyalodidymæ

**PSEUDODIPLODIA** Karst. — Syll. III p. 621, X p. 409, XI p. 553, XVI p. 986, XVIII p. 416.

1. Pseudodiplodia cyanogena (Speg.) Sacc. — Diplodia cyanogena 7524 Speg. Ampelom. Ital. in Riv. Vit. ed Enol. Conegliano II (1878) p. 472, f. 13. — Pycnidiis solitariis in maculis brunneis, oblongis insidentibus, innato-erumpentibus, 150-180 μ. diam., subsphæricis v. lenticularibus, ostiolo impresso perforatis, contextu laxe celluloso-parenchymatico læte cyanescente; sporulis ellipsoideis, v. oblongo-ellipsoideis, utrinque obtusulis, initio continuis 1-guttulatis, dein plasmate bipartito 1-septatis, constrictisque, 18-20 × 10, chlorinis v. dilute roseo-fuscellis; sporophoris cylindraceis, 15-25 × 2-3.

Hab. ad baccas exsiccatas Vitis viniferæ, Conegliano Ital. bor., socio Fusario roseo. — Fere absque dubio st. pycnidicus Liseæ v. Gibberellæ speciei.

2. Pseudodiplodia herbarum Strasser, Verh. k. k. zool.-bot. Ges. 7525

Wien LX (1910) p. 321. — Pycnidiis sparsis, siccis globosis, clausis, extus subsulcatis, ceterum levibus, nigricantibus, udis e carneo brunneolis, ceraceis, globosis v. ovoideis, late apertis, depressis, 100  $\mu$ . circa diam.; sporulis hyalinis, biseptatis, obtuse fusoideis,  $12-16(-18) \times 45$ .

Hab. in caulibus putrescentibus Cirsii, Sonntagberg Austriæ.

3. Pseudodiplodia Xylariæ Ferd. et Winge, Botanisk Tidsskz. XXIX 7526 (1908) p. 21, tab. II, fig. 10. — Pycnidiis superficialibus dense gregariis, globosis, subconico-protractis, nonnunquam applanatis, formaque Roselliniam thelenam in memoriam revocantibus, membranaceis, 100-125 μ. diam., luteis; excipulo stratis circ. 5 minute cellularibus composito, intimo sporulifero ideoque sporophoris nullis; sporulis oblongis, apice rotundatis v. ellipsoideo-subfusiformibus, nonnunquam varie irregularibus, maturis 1-septatis, ad septum sæpius leniter constrictis, guttulis 2-4 oleosis farctis, 6,5-8 ≈ 2¹/₂-3¹/₄, subinde longioribus, hyalinis.

Hab. ad clavulas Xylariæ sp. in insula St. Jan Indiæ occ. (RAUNKIÆR). — Habitus, primo obtutu, quasi Eurotii.

## Sect. 3 Hyalophragmiæ

STAGONOPSIS Sacc. — Syll. III p. 621, X p. 410, XVIII p. 417.

1. Stagonopsis sclerotioides v. Höhn., Ann. Naturh. Hofmus. Wien 7527 XX Heft 4 (1905) Extract. p. 5. — Pyenidiis astomis, irregulariter disrumpentibus, subglobosis, superficialibus, selerotioideis, solitariis v. gregariis, sordide rubro-brunneis, opacis, rugulosis, 0,5-1 mm. latis et altis, basi pallidioribus, angustatis, in mycelio ex hyphis subhyalinis 4 μ. cr. constituto insidentibus; parietibus rubro-ochraceo-flavis, mollibus, 20 μ. circ. cr., 3-4 stratosis, grosse plectenchymaticis; sporulis cylindraceo-fusoideis, apice acutatis, quadrilocularibus, hyalinis, 16-20 × 3-4; sporophoris simplicibus 16-20 μ. long. 3-4 μ. cr.

Hab. in caulibus Astragali sp. in Mt. Erdschias-Dagh Anatoliæ.

# Sect. 4 Scolecosporæ

TRICHOSPERMA Speg. — Syll. X p. 411, XVIII p. 419.

1. Trichosperma cyphelloidea v. Höhnel, Fragm. z. Mykol., Sitzb. 7528

k. Ak. d. Wiss. Wien, Bd. CXVI, Abt. I (1907) p. 145. — Subiculo late effuso, albo, arcte adnato, tenui-membranaceo; pycnidiis sparsis, superficialibus, navicularibus, supra conoideo-crateriformibus, late apertis, tenuiter membranaceo-marginatis, extus levibus v. asperatis, albidis, usque ad 1 mm. altis et cr., disco pallide flavido; contextu ex hyphis plectenchymaticis, tenuibus, crasse tunicatis constituto; sporophoris simplicibus filiformibus  $40-50 \approx 1,5-2$ ; sporulis filiformibus curvulis v. contortis, septatis,  $60-90 \approx \text{basi } 2-3$ , supra 1,5-1,8; loculis  $6-7 \mu$ . long.

Hab. in ligno putri, Upolu in Ins. Samoa (Rechinger).

2. Trichosperma æruginosa v. Höhn. Fragm. z. Mykol. IX (1909) pag. 7529 70. — Pycnidiis superficialibus, epiphyllis, maculis nullis, æqualiter sparsis, vegetis saturate ærugineis, superne pallidioribus, primo clausis, depresse globosis, demum conchiformibus late apertis, siccis/varie contortis, nigris, nitidulis, glabris, membranula basali usque ad 60 μ. cr., carnosula suffultis, deorsum gelatinosocarnosulis, superne carnoso-membranaceis; sporophoris pycnidii partem dimidiam inf. obtegentibus, simplicibus, 7-8 × 2-3, apice rotundatis, monosporis; sporulis cylindrico-vermicularibus, spiraliter convolutis, apice obtusulis, sæpe sigmatoideis 60 × 2, sursum usque ad 4 μ. incrassatis, conglutinatis.

Hab. in foliis vivis Myrtaceæ cujusdam (Myrtus?) Villa Maria pr. S. Paulo Brasilia (Usteri). — Quoad contextus structuram cfr. v. Höhnel l. c., qui speciem suam serius in nota ms. ad gen. Pyrenotrichum Mont. duxit.

# TRICHOCREA March. - Syll. X p. 410.

Trichocrea valdiviensis Speg., Fungi Chilenses (1910) p. 172. — 7580
 Pycnidiis laxe gregariis, epidermide tectis, serius erumpentibus, candidis, latissime ostiolatis, membranaceo-carnosulis, sublenticularibus, 75-100 μ. diam.; sporulis filiformibus majusculis, flexuosis, hyalinis, septulatis, 50-60 × 1,50-1,75.

Hab. in caulibus emortuis subputrescentibus Lobeliæ Tupæ prope Ciudad de Valdivia Chile Amer. austr.

CHROMOCYTOSPORA Speg., Myc. Argent. V, p. 392, in Anal. Mus. Nac. Buenos Aires XX (1910). (Etym. chroma color et Cytospora, h. e. Cytosporina læte colorata). — Stromata saprophila, valsea v. eutypea ceracea, læticoloria, inordinate multilocularia; sporulæ fili-

formes, hyalinæ. — Genus *Cytosporinæ* affine, stromatibus loculisque nectrioideis recedens.

1. Chromocytospora ricinella Speg. l. c. p. 392, cum icon. — Stro-7581 matibus elliptico-difformibus, 0.5-1 mm. long. et lat, depresse scrupulosis, ex albo roseo-flavescentibus, primo tectis dein per fissuras epidermidis erumpentibus, 4-5-locularibus, loculis minutis 100-250 μ. diam., e mutua pressione difformibus; sporulis arcuato-unciniformibus, utrinque acutatis, 20-30 × 1, continuis.

Hab. ad ramulos dejectos putrescentes Ricini communis in sepibus La Plata Argentina Amer. austr.

# Fam. 3. Leptostromataceæ SACC.

#### Sect. 1 Hyalosporæ

**LEPTOTHYRIUM** Kunze. — Syll. III p. 626, X p. 412, XI p. 553, XIV p. 992, XVI p. 986, XVIII p. 419.

Leptothyrium vulgare (Fr.) Sacc. — Syll. III p. 633 — var. 7532
 Corni-suecicæ (Fr.) Starb., Stud. Fies Herb. I (1894) p. 95, t. 4,
 f. 74. — Phoma Corni-suecicæ (Fr.) Sacc. Syll. III p. 86. — Pyenidiis superficialibus depressis, elongatis, membranaceis, cellulis rectangularibus versus ostiolum centrale convergentibus, 150-200 μ. diam.; sporulis rectis, cylindraceis, hyalinis, 5-6,5 × 1,5-2.

Hab. in ramis Corni suecicæ in Suecia.

2. Leptothyrium Peronæ Briosi et Cav., Funghi parass. n. 348 (1900). 7533 — Maculis orbicularibus v. vagis, fuscis, nigro-marginatis; pycnidiis epiphyllis subsuperficialibus, clypeatis, radiato-contextis, fibrillis eximie ramosis, medio perforatis; sporophoris bacillaribus brevissimis, stipatis; sporulis perminutis, ellipsoideis v. ovoideis, levibus, hyalinis, 2-4 μ. longis.

Hab. in foliis Pæoniæ Moutan in arboreto Instituti Silviculture, Vallombrosa Toscana (V. Perona).

3. Leptothyrium Pæoniæ Voglino, Ann. R. Acc. Agricolt. Torino vol. 7584 LI (1908) Extr. p. 26 notas. — Maculis latis, ochraceis, fusco cinctis, circularibus v. oblongis; pycnidiis epiphyllis, disciformibus, scutatis, fuliginosis v. nigris. in lineam circularem dispositis, medio sparsis, 800 μ. usque ad 1 mm. latis; sporulis oblongo-ellipsoideis, hyalinis, 7-8 × 2; sporophoris filiformibus, 50 × 1.

Hab. in foliis Pæoniæ arboreæ, Rivoli, Torino, Ital. bor.

4. Leptothyrium berberidicola C. Massap. Sacc. in Ann. Myc. III 7535 (1905) p. 168. — Pycnidiis punctiformibus, nigris, crebre disseminatis, epiphyllis, depresso-clypeatis, contextu subanhisto minutissime punctulato, fere ab epidermide mutata formato; sporulis bacillaribus, utrinque rotundatis, 4-5 ≈ 1-1,5; sporophoris acicularibus 8-10 ≈ 1,5.

Hab. in foliis siccis Berberidis vulgaris supra Badia Calavena in agro Veronensi Italiæ bor. — A Lept. Berberidis Cooke et M. (an = Lept. Berberidis Richon?) diversum.

5. Leptothyrium acerigenum Kab. et Bub. Hedw. L (1910) p. 43. — 7536 Maculis amphigenis, sæpius epiphyllis, 1 cm. lat., irregulariter rotundatis, bullosis, alutaceis, dein griseis; pycnidiis amphigenis, sparsis, ostiolatis, scutatis, nigris, rugosis, opacis, udis convexis, nitidis, 0,3-0,5 mm. diam., astomis, contextu indistincte parenchymatico-radiato; sporulis exiguis, 3-4 × 1, rectis, hyalinis, eguttulatis; sporophoris dendroideo-ramosis, filiformibus, apicibus attenuatis, 15-20 × 2-2,5, hyalinis.

Hab. in foliis putrescentibus præteriti anni Aceris platanoidis pr. Turnau Bohemiæ. — A ceteris speciebus acericolis minutie sporularum imprimis distinguitur.

6. Leptothyrium microstomum Spegazz., Fungi Paulist. Rev. Mus. 7537 La Plata t. XV p. 39 (1908). — Maculis nullis; pycnidiis amphigenis dimidiato scutatis 70-80 μ. diam., nigris, glabris, subiculo destitutis, ostiolo parvulo 5-8 μ. diam. perforatis, margine vix fimbriato, membranaceo, contextu parenchymatico radiante, fuligineo; sporulis utrinque obtusissimis, 6-8 × 4, eguttulatis.

Hab. in foliis Lauraceæ cujusdam, Ipiranga Moça Brasilia, (USTERI)

7. Leptothyrium rubicola Speg., Fungi Chilenses (1910) p. 173. — 7538 Maculis nullis; pycnidiis superficialibus orbicularibus, 75-80 μ. diam., dimidiato-scutatis, membranaceo-coriacellis, contextu prosenchymatico-radiante, centro ostiolo rotundo obsolete perforatis, margine integerrimis; sporulis cylindraceis, 4-5 × 1, utrinque obtusis, hyalinis, rectis v. vix subcurvulis.

Hab. in sarmentis siccis Rubi sancti prope Ciudad de Valdivia Chile Amer. austr.

8. Leptothyrium serotinum Kab. et Bub., Myc. Beitr., Hedwigia Bd. 7589 XLVI (1907) p. 295. — Pycnidiis epiphyllis, raro hypophyllis, gregariis v. sparsis, quandoque confluentibus, subellipsoideis, 60-120 µ. latis, nigris, nitidis, carbonaceis, epidermide tectis, diu clau-

sis, demum poro irregulariter rotundato apertis, brunneo-olivaceis, firmis, contextu parenchymatico; sporulis cylindraceis, utrinque rotundatis, uno latere sæpe angustatis, rectis,  $12-18 \times 2-3$ , hyalinis, pluriguttulatis; sporophoris brevibus.

Hab. in foliis siccis, putrescentibus Pruni serotinæ, prope

Turnau Bohemia (KABAT).

9. Leptothyrium exiguum Syd. Ann. Mycol. V (1907) p. 361. — Pyc- 7540 nidiis epiphyllis, maculis albidis insidentibus, atris, sparsis vel etiam hinc inde aggregatis, exiguis, punctiformibus, 40-70  $\mu$ . diam., dimidiato-scutatis, contextu radiato fuligineo; sporulis globosis, subglobosis vel ovatis, continuis, hyalinis,  $4-5 \approx 3^4/2 - 4^4/2$ .

Hab. in foliis Myrtaceæ spec. indetermitatæ, Prov. Sao Paulo, Campinas Brasilia. — Folia fungo affecta habitum erysiphaceum seu oidiaceum induunt, qui vero nil est nisi exsudatio

quædam a fungillo generata.

10. Leptothyrium lunula v. Höhn., Ann. Naturhist. Hofmus: Wien <sup>7541</sup> XX, Heft 4 (1906) p. 6. — Pycnidiis erumpenti-superficialibus, depressis, rotundatis v. elongatis, 200–400 μ. long., nigris tenuiter tunicatis, irregulariter disrumpentibus; parietibus pseudoparenchymaticis ex cellulis irregulariter dispositis stratum simplicem efformantibus, 8-20 μ. cr.; sporulis hyalinis, in massa pallide brunneolis, fusoideis, apice acutatis, lunato-falcatis, 15-24 × 2,5-5 plerumque 18-20 × 3-4.

Hab. in rhachidibus foliorum Astragali sp. in Erdschyas-Dagh 2700-2900 m. alt. Asiæ minoris.

11. Leptothyrium Kellermani Bubák, Journ. of Mycol. XII (1906) 7542 p. 55. — Pycnidiis plerumque hypophyllis, raro epiphyllis quandoque in maculis pallescentibus sparsis, depresse scutatis, 90-150 μ. diam., nigris, non nitidis, contextu parenchymatico obscure brunneo, olivaceo; sporulis bacillaribus 3-4,5 × 1, rectis, unilocularibus; sporophoris subclavatis, 6-8 μ. long., tenuibus, infra fasciculatis, hyalinis.

Hab. in foliis Sassafras officinalis, Fairfield Co. Ohio Amer. bor. (W. A. Kellerman). — Socia adest Sphærella Sassafras Ell. et Ev.

12. Leptothyrium drimydicola Speg., Fungi Chilenses (1910) p. 172. 7543 — Maculis orbicularibus determinatis amphigenis, subpallescentibus, obsolete marginatis, 1-5 mm. diam.; pycnidiis centro macularum ad epiphyllum laxe insidentibus, 50-90 μ. diam., dimidiatoscutatis, glabris, atris, opacis, centro stellatim dehiscentibus; spo-

rulis cylindraceis, hyalinis,  $14-16 \times 3-3.5$ , 2-4-guttulatis; sporophoris cylindraceis  $5-6 \times 1$ , hyalinis.

Hab. in foliis vivis Drimydis Winteri in silvaticis Bahia de Corral, Chile Amer. austr.

13. Leptothyrium Azorellæ P. Henn., Deutsche Südpolar-Exped. Bd. 7544 VIII (1906) Extr. p. 15, tab. 22, a, b, c. — Pycnidiis superficialibus, sparsis, singularibus discoideo-rotundatis, atris, membranaceis cellulosis, astomis, 150-180 μ. diam.; sporulis oblongis, subfusoideis, rectis, obtusis, eguttulatis, continuis, hyalinis 6-7 × 2-2,5.

Hab. in foliis Azorellæ Selaginis, in Kerguelen (WERTH).

14. Leptothyrium Monotropæ P. Henn., Pilzfl. v Lanke II in Verhandl. 7545 bot. Vereins Brand. (1905) p 222. — Pycnidiis gregariis, dimidiato-discoideis, ellipsoideis v. rotundatis, membranaceis, atro-nitentibus c. 100-150 × 50-60; sporulis cylindraceis, obtusis, hyalinis, continuis, 12-16 × 2,5-3.

Hab. in caulibus emortuis Monotropæ Hypopitys, Anhöhen ad Hellsee Germania.

15. Leptothyrium Psychotriæ Syd. Ann. Mycol. V (1907) p. 362. — 7546 Pycnidiis hypophyllis, sine maculis, sparsis, rotundatis, 200-250 μ. diam., scutato-dimidiatis, atris, opacis, contextu radiatim angusteque parenchymatico, obscure fuligineo, centro saturatiore, poro pertusis; sporulis ellipsoideis, utrinque obtusis, continuis, hyalinis,  $2^1/_2-3^4/_2 \approx 1-1^4/_2$ .

Hab. in foliis Psychotriæ auconifoliæ (?), in horto bot. Sao Paulo Brasiliæ.

16. Leptothyrium heterospermum Speg., Myc. Argent. V, p. 393, in 7547 An. Mus. Nac. Buenos Aires XX (1910). — Pycnidiis epiphyllis scutiformibus, 150-180  $\mu$ . diam., pauci-gregariis, areola leniter infuscata sæpius cinctis, astomis; sporulis obovatis, utrinque obtusis,  $10-12 \approx 7-8$ , hyalinis, muco vestitis, in sporophoris filiformibus non v. vix longioribus,  $10-15 \approx 1$ , solitarie acrogenis, paraphysibus numerosis filiformibus mox in articulos cylindraceos,  $10 \approx 1.5$ , secedentibus cinctis.

Hab. ad folia viva Macfadyenæ cynanchoidis in silvis Jujuy Argentina.

17. Leptothyrium gentianicola (DC.) Bäuml. — Syll. X p. 415 — 7548 var. olivaceum Bubák, Ann. Mycol. VII (1909) p. 61. — Pycnidiis epidermide velatis, lenticularibus, 150-250 μ. diam., membrana tenui inferne crassiore nigricante; sporulis cylindraceis, 13-

 $22 \approx 2,5-3$ , dilute olivaceis; sporophoris 5-8  $\mu$ . long., apicem versus incrassatis et 3-4  $\mu$ . cr., hyalinis.

Hab. in foliis emortuis Gentianæ acaulis, Wienerschneeberg Austria.

18. Leptothyrium glomeratum Patouill., Bull. Soc. Mycol. Fr. XXIV 7549 (1908) p. 12. — Maculis nullis; pycnidiis orbicularibus, convexodimidiatis 45-75 μ. diam., solitariis v. dense glomeratis, sæpe confluentibus quandoque pilis brevibus erectis simplicibus fuligineis parce vestitis, contextu fuliginoso, radiante; ostiolo punctiformi; sporulis hyalinis, rectis, cuneiformibus, intus granulosis. 10 × 2.

Hab. in pagina inferiori foliorum Cionandræ racemosæ,

Guadalupa (Duss).

19. Leptothyrium tumidulum Sacc. in Ann. Mycol. X (1912) p. 312. 7550 — Maculis plerumque epiphyllis, minutis, subcircularibus, brunneolis, 0,5-1 mm. diam., non discolori-marginatis; pycnidiis 1-paucis in quaque macula, subhemisphæricis, dimidiatis, nigris, nitidulis, 110-140 μ. diam., apice convexis, diu astomis, tandem poro 25-28 μ. diam. dehiscentibus; contextu fuligineo e cellulis sinuosis, nonnihil radiantibus, prope porum obscurioribus formato et basi circum circa breviter decurrente, subfimbriato; sporulis ovoideo-oblongis, basi acutiusculis, leviter inæquilateralibus, levibus, 14-15 × 7-8, nubiloso-farctis, hyalinis; sporophoris brevissimis.

Hab. in foliis petiolisque vivis Solidaginis rigidæ, London Ontario Canadà (J. Dearness). — Sæpe promiscue occurrunt scutula insecti cujusdam, pycnidiorum æmula. — Species subaffinis videtur Leptothyrio punctiformi et Lept. Bornmülleri sed rite distincta; imprimis pycnidiis tumidis etsi vere dimidiatis dignoseitur.

20. Leptothyrium Oxycocci Shear, Bull. Torr. Bot. Club. XXXIV 7551 (1907) p. 311, Cranberry Dis. tab. V, fig. 29-33. — Pycnidiis nigris, dimidiatis, amphigenis, sparsis, subcoriaceis, irregulariter subglobosis, 160-250 μ. diam., epidermide circumdatis, quandoque superficialibus v. subsuperficialibus et collabescentibus, basi sæpe erumpentibus et tunc massam sporularum ostendentibus; parietibus irregulariter incrassatis plerumque ad apicem; sporulis subfusoideis, hyalinis, quandoque leniter curvulis, pseudoseptatis, 10-15 × 2,5-3; sporophoris simplicibus leniter conoideis, sporulas leniter superantibus.

Hab. in foliis emortuis Vaccinii macrocarpi prope Wareham et Pierceville Mass. Amer. bor.

21. Leptothyrium Pazschkeanum Bubák, Journ. of Mycol. XII (1906) 7552 p. 55. — Pycnidiis in caulibus emortuis late gregariis, depressis, scutatis, 50-120 μ. latis, brunneis, contextu parenchymatico pallide flavo-brunneo, poro centrali obscuriori irregulariter rotundato; sporulis bacillaribus 3-4,5 × 1, rectis v. curvulis, hyalinis; sporophoris brevibus indistinctis.

Hab. in caulibus emortuis Asclepiadis verticillatæ, Emma Salina Co. Amer. bor. (C. H. Demetrio).

22. Leptothyrium Gibellianum Cav. in Briosi et Cavara, Funghi 7553 parass. n. 273 (1896). — Pyenidiis spuriis e cuticula mutata atrataque efformatis, plerumque hypophyllis, applanatis, nigris, plicatisque; sporophoris e strato stromatico tenui, hyalino orientibus, cylindraceis v. clavulatis sporulas paullo superantibus, monosporis; sporulis ellipsoideis, subbotuliformibus, intus granulosis, hyalinis, 6-8 × 2-3,

Hab. in foliis Betulæ albæ in horto bot. Torino Ital. bor. (G. GIBELLI).

23. Leptothyrium alneum (Lév.) Sacc. — Syll. III p. 627 — f. Alni- 7554 cordatæ Trott. ap. Sacc. in Ann. Mycol. IX (1911) p. 253. — A typo tantum recedit pycnidiis sporulisque paullo majoribus, postremis 11-15 × 2.

Hab. in pag. sup. foliorum adhuc viventium Alni cordatæ pr. Paola Calabriæ, (A. Trotter). — Cl. C. Massalongo (Osserv. fitol. in Mad. Verona II (1908) p. 10 extr. formam citat in foliis Alni incanæ, Bolca Verona It. bor.

24. Leptothyrium didermatum Kab. et Bub. Myc. Beitr. Hedwigia 7555 Bd. XLVI (1907) p. 295. — Pycnidiis hypophyllis, sparsis v. gregariis, quandoque confluentibus, rotundatis v. angulosis, scutatis, 100-250 μ. latis, nigris, nitidis, siccis plicatis, asperulis, udis pustuliformibus, irregulariter disrumpentibus; contextu parenchymatico duplici; stratu exteriori parenchymatico brunneo, interno pallidiori et e cellulis elongatis plus minusve radiantibus constituto; sporulis cylindraceis 3-4 × 1-1,5, rectis, hyalinis; sporophoris basi cæspitose confertis, rectis v. curvis, 20-30 × 1-1,5, hyalinis.

Hab. in foliis putrescentibus Fagi silvaticæ, Bohemia (KABAT).

25. Leptothyrium californicum Bubák, Journ. of Mycol, XII (1906) 7556
p. 55. — Maculis epiphyllis, rotundatis, non distincte limitatis, sæpe confluentibus, brunneis; pycnidiis epiphyllis, parvis, copioSyll. Fung. XXII (V-1913)

sis, 90  $\mu$ . circ. latis, scutatis, convexis, nigris, nitentibus, subepidermicis, demum irregulariter apertis, contextu crassiusculo, indistincto, sordide castaneo-brunneo; sporulis breviter ellipsoideis, 4-6,5  $\times$  2-3, hyalinis; sporophoris breviter cylindraceis, 15  $\mu$ . circ. longis, crebris, pallide olivaceo-brunneolis.

Hab. in foliis vivis Quercus Morehi, Pine Grove, Amador Co. California Amer. bor. (Hansen). — Socia adest Phleospora Hanseni.

26. Leptothyrium Tremulæ Kab. et Bub. Hedw. L (1909) p. 44. — 7557 Maculis pallide alutaceis, utrinque conspicuis, minutis, irregularibus; pycnidiis plerumque epiphyllis, raro hypophyllis, subinde nervi-petiolicolis, sparsis v. gregariis, raro 2-pluribus confluentibus, orbicularibus, 0,2-0,5 mm. lat., nigris, opacis, astomis, contextu compacto, atro-brunneo, indistincte radiatim celluloso; sporulis minutissimis, breve bacillaribus, 2,3-3,5 × 1-1,5, hyalinis; sporosphoris dense fasciculatis, 12-20 × 2-2,5, hyalinis.

Hab. in foliis putrescentibus Populi Tremulæ pr. Turnau Bohemiæ.

27. Leptothyrium discosioides (Sacc.) Keissl. in litt. Nov. 1912. — 7558

Ita dicetur *Phoma discosioides* Sacc. — Syll. III p. 114 — nam
pycnidium est applanatum, radiatim contextum et subastomum.

Hab. in foliis fagineis non tantum in Gallia sed et in Austria sup. (Keissler).

28. Leptothyrium talcahuanense Speg., Fungi Chilenses (1910) p. 173. 7559 — Maculis nullis; pycnidiis epiphyllis superficialibus plus v. minus laxe gregariis, orbicularibus, dimidiato-scutatis, 100-150 μ. diam., astomis, atris, tenuiter membranaceis, centro parenchymaticis; sporulis cylindraceis, utrinque obtusis, rectis, 5-7 × 1,75-2, hyalinis.

Hab. in foliis dejectis, adhuc vivis Cryptocaryæ Bellotæ in silvaticis Cerro Caracol de Concepcion Chile Amer. austr.

29. Leptothyrium conigenum Peyl, Lotos VII (1857) p. 66, tab. II, 7560 fig. 10. — Syll. III p. 632. — Pycnidiis scutiformibus, minutissimis, atris, nitidulis, margine leviter elevatis, centro minute papillatis, nucleo albido; sporulis fusoideis, leviter curvis, minutissimis, hyalinis.

Hab. in squamis dejectis, inter Muscos putrescentibus, Abretis albæin viridario, Kacin Bohemiæ.

30. Leptothyrium pinophilum Bub. et Kab. Hedw. L (1910) p. 43. — 7561 Maculis nullis; pycnidiis amphigenis, sparsis v. gregariis, interdum

confluentibus, ambitu rotundatis, scutiformibus, 150-250  $\mu$ . diam., nigris; contextu e cellulis radiatim et concentrice dispositis atrocastaneis formato, centro ostiolo irregulari obscuriori prædito; sporulis copiosis, bacteriformibus,  $2 \approx 0.7$ -1, hyalinis, utrinque minute 1-guttulatis; sporophoris e strato prolifero minute celluloso-favaceo, dilute brunneo oriundis, longe ampulliformibus,  $20~\mu$ . long., dilute brunneolis.

Hab. in acubus Abietis pectinatæ pr. Turnau Bohemiæ. — Contextu singulari radiato-zonato et sporulis exiguis prædistincta species.

31. Leptothyrium radiatum Ferdinands. et Winge, Bot. Tidsskr. 7562 XXVIII (1907) p. 255, fig. 5. — Pycnidiis superficialibus, orbicularibus v. polygonatis, applanato-scutatis, circa 250 μ. diam., nitentibus, contextu distincte celluloso-radiato, irregulariter plerumque radiatim dehiscentibus; sporulis copiosis, continuis, bacillaribus, 6,5-8,5 × 1<sup>1</sup>/<sub>4</sub>, hyalinis; sporophoris brevibus, nonnumquam ramosis, evanidis.

Hab. ad culmos siccos Junci squarrosi, prope Borris Jutlandiæ, Dania.

32. Leptothyrium Caricis Bondarzew, Acta Horti Petropol. XXVI 7568 (1906) p. 49. (extr.) — Pycnidiis amphigenis vagis v. gregariis, carbonaceis, scutiformibus, v. rotundatis, 100-160 μ. diam.; sporulis cylindraceo-fusiformibus v. falcatis, hyalinis, 16-20 × 3-3,5; sporophoris brevibus, filiformibus, 4-5 × 0,5.

 $\it Hab.$  in foliis vivis et emortuis Caricis sp. in ditione Kursk Rossiæ.

33. Leptothyrium charticola Vouaux, Bull. Soc. Myc. Fr. (1910) 7564 p. 154. — Pycnidiis sparsis superficialibus, dimidiatis, fuscis, membranaceis, contextu tenuissimo ex hyphis varie conglomeratis constante, circulo irregulari hiantibus, minimis, 70-100 μ. diam.; sporulis numerosissimis, fusoideis curvulisque, lunulæ formam habentibus, utrinque acutiusculis, plerumque multiguttulatis, rarius bi-v. uniguttulatis, 12-14 × 3,5-4, hyalinis, continuis, sporophoris nullis suffultis, sed e cellulis hyalinis emergentibusque parietis ipsius enascentibus.

Hab. in charta putrescente, Versailles Gallia (Bouly de Lesdain). — Ab aliis speciebus differt dimensionibus singularum partium; affine L. Periclymeni (Desm.) Sacc., cujus sporulæ multo majores sunt.

ERIOTHYRIUM Speg. - Syll. X p. 418.

Eriothyrium? rosicola Speg., Myc. Argent. V, p. 395, in Anal. 7565
Mus. Nac. Buenos Aires XX (1910). — Maculis nullis v. folio
infecto hinc inde leniter vageve pallescente; pycnidiis amphigenis laxissime gregariis v. sparsis, superficialibus, orbicularibus, 120,
μ. diam., dimidiato-scutatis, astomis, membranaceis, margine modice fimbriato-radiantibus, atris; sporulis ellipsoideis v. ovoideis
utrinque plus minusve rotundatis, 4-5 × 1,5-2, eguttulatis, hyalinis.

Hab. ad folia viva Rosæ lucidæ in hortis La Plata Argentina Amer. austr.

2. Eriothyrium cucurbiticola Speg., Myc. Argent. V, p. 394, in Anal. 7566 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis v. foliis hine inde obsolete pallescentibus; plagulis-amphigenis repando-orbicularibus, 5-7 mm. diam., atro-olivaceis ex hyphis tenuibus, 50-250 × 5, dense v. laxe intertextis, olivaceis efformatis; pycnidiis dimidiato scutatis, 100-250 μ. diam. margine inæqualibus, crenulatis, radiantim prosenchymaticis, nigro-olivaceis, ex hyphis conglutinatis dense septulato-articulatis, articulis 4-6 × 5, obscure olivaceis; sporulis cylindraceis utrinque obtuse rotundatis, sæpius biguttulatis, 9-11 × 2, hyalinis.

Hab. vulgata ad folia viva Cayaponiæ citrullifoliæ in sepibus circa Tucumán Argentina America austr.

MELASMIA Lév. Syll. III p. 637, X p. 419, XI p. 555, XIV p. 994, XVI p. 989, XVII p. 793, XVIII p. 424.

1. Melasmia falcata Syd. Ann. Mycol V (1907) p. 362. — Stroma-7567 tibus amphigenis, innatis, orbicularibus, planis, ½-2 cm. diam., atris, opacis, flavo-marginatis,; pycnidiis globulosis, immersis, subinde circulariter dispositis; sporulis filiformibus, valde curvatis, plerumque falcatis vel sublunulatis, hyalinis, continuis, acicularibus, 18-25 × ½; sporophoris subfiliformibus, hyalinis.

Hab. in foliis Diospyri, prov. Sao Paulo, Confins, Brasilia.
Melasmia salicina Lév. ap. Tul. Fung. Carp. III p. 119, t. XV, 7568 f. 15-17 (1865). — Pycnidiis disciformibus, epidermide atrata tectis et ex ea fere formatis poroque dehiscentibus, nigris, subinde leviter umbonatis v. demum plicatis, 130-160 μ. latis; sporophoris densissime stipatis bacillaribus, 16-23 μ. alt., stratum basilarem fungilli omnino formantibus; sporulis lineari-cylindricis copiosis-

simis, utrinque obtusis, rectis, 5-6  $\mu$ . longis, demum cirrose expulsis.

Hab. in foliis Salicis capreæ in tota fere Europa. — Sistit statum pycnidicum Rhytismatis salicini.

3. Melasmia exigua Syd. Ann. Mycol. VIII (1910) p. 41. — Stro- 7569 matibus hypophyllis, rotundatis vel elongatis, atris, 1-4 mm. longis, 1-2 mm. latis, opacis, maculiformibus; sporophoris numerosis, dense gregariis, minutissimis ca. 100 μ. diam.; sporulis numerosissimis, bacillaribus, hyalinis, continuis, 2-3 × 0,5-0,8

Hab. in foliis Loranthi spec., Mt. Pulog, prov. of. Benguet, Luzon, in insulis Philipp. (CURRAN, MERRITT et ZSCHOKKE).

#### ACTINOTHECIUM Ces. — Syll. III p. 638.

1. Actinothecium patagonicum Speg., Myc. Argent. V, pag. 394, in 7570 Anal. Mus. Nac. Buenos Aires XX (1910). — Maculis nullis sed foliis infectis totis pallescentibus v. subarescentibus; pycnidiis amphigenis innato-superficialibus, numerosis sed non constipatis, orbicularibus, dimidiato-scutatis, 60-90 μ. diam., ostiolatis, atris, opacis, contextu indistincto, margine repando-denticulato; sporulis cylindraceo-ellipsoideis utrinque rotundatis, 4-4,5 × 1,5, rectis v. leniter inæquilateralibus, hyalinis, eguttulatis.

Hab. ad folia languida Acænæ adscendentis ad ostia Rio Chubut Argentina Amer. austr.

2. Actinothecium callicola Speg., Fungi Paulist, Rev. Mus. La Plata 7571 t. XV, p. 39 (1908). — Maculis eximie orbicularibus 1-3 mm. d., ad epiphyllum convexulis pallescentibus bene determinatis, ad hypophyllum non manifestis sed bulloso-concaviusculis; pyenidiis dimidiato-scutatis 80-120 μ. diam., matrici arcte adnatis, membranaceis, contextu prosenchymatico radiante, fuligineo, ambitu subintegerrimo; sporulis rectis utrinque acutiuscule rotundatis, 10-14 × 2-2,5, continuis, non v. obsolete guttulatis, hyalinis.

 $\it Hab.$  ad folia viva Eugeniarum in hortis Ipiranga Brasilia (Usteri).

3. Actinothecium melanopotamicum Speg., Myc. Argent., V, p. 394, 7572 in Anal. Mus. Nac. Buenos Aires XX (1910). — Pycnidiis superficialibus dense constipatis, crustulam atram efficientibus, repando-orbiculatis, 75-120 μ. diam., stellatim dehiscentibus, nigris, glabris, fragilibus, contextu subpellucido dense prosenchymatico; sporulis obovatis, 8-10 × 6-7, crassiuscule tunicatis, hyalinis, levibus, grosse 1-guttulatis, in strato proligero mucoso constipatis, non catenulatis.

Hab. ad folia viva Ballotæ nitidæ in silvis andinis Rio Negro Argentina America austr.

4. Actinothecium guaraniticum Speg., Myc. Arg. V, p. 394, in Anal. 7578 Mus. Nac. Buenos Aires XX (1910). — Stromatibus sparsis, amphigenis, 1-2 mm. diam., superficialibus, suborbicularibus, plus minusve colliculosis, dimidiato-scutatis, atris, glabris, contextu prosenchymatico parum distincto; loculis pusillis 50-70 μ. diam., difformibus, subconfluentibus atque minute dehiscentibus; sporulis late ellipsoideis, utrinque rotundatis, 6-7 × 3-4, muco minute subconglutinatis, levibus, hyalinis.

Hab. ad folia viva Aspidospermatis guaranitici in silvis prope Puerto Léon Misiones, Argentina.

5. Actinothecium ? chilense Speg., Fungi Chilenses (1910) pag. 173, 7574 cum icon. — Pycnidiis superficialibus orbicularibus, dimidiato-scutatis, magnitudine variabilibus (in Ætoxico 200-300 μ. diam., in Boldoa 400-500 μ.), in sicco collabescentibus, centro stellatim rimosis, ambitu integerrimis, atris, glabris coriacellis, contextu pergrosse parenchymatico-hexagono; sporulis fusoideo-arcuatis, hyalinis, apice altero truncato et denticulato, in Ætoxico 12-16 × 2, in Boldoa 20 × 2.

Hab. frequens in foliis coriaceis dejectis putrescentibus Ætoxici et Boldoæ in silvaticis Cerro Caracol de Concepción Chile Amer. austr.

6. Actinothecium? quercinum Arnaud, Ann. Ècole nat. d'Agricult. 7575 de Montpellier 2 sér., t. IX, fasc. 4 (1910) p. 287, tab. IV. — Stromate phyllogeno, subcuticulari, nigro, lobato-stellato, ramis irregularibus; pycnidiis inclusis, cavitate secundum stromatis formam, varie efformata, per rimas irregulares dehiscente; sporulis sessilibus breviter fusoideis, utrinque acutiusculis, flavo-fuscidulis, 22-23 × 6.

Hab. in foliis vivis Quercus Ilicis et Q. cocciferæ in Gallia australi. — Teste auctore est forma pycnidica Trabutiæ quercinæ.

**LEPTOSTROMA** Fr. — Syll. III p. 639, X p. 420, XI p. 555, XIV p. 994, XVI p. 990, XVIII p. 426.

Leptostroma Cumingi Speg., Fungi Chilenses (1910) pag. 174. — 7576
 Maculis ellipticis longitudinalibus, 5-20 mm. long., 2-5 mm. lat., cinerescentibus, indeterminatis; pycnidiis innato-erumpentibus laxe gregariis, linearibus, 0,5-1 mm. long., 100-180 μ. lat., non dimi-

diatis, rima longitudinali dehiscentibus, utrinque acutis, atris, subcarbonaceis; sporulis ellipsoideis, non v. obsolete subnavicularibus, utrinque obtusiusculis, 10-12 × 4, grosse biguttulatis, hyalinis.

Hab. in caulibus siccis subputrescentibus Chusquess Cumingi, Cerro Alegre de Valparaiso, Chile Amer. austr.

- PLATYCARPIUM Karst., Acta Soc. pro Faun. et Fl. fenn. XXVII, 4 (1905) p. 10 (Etym. platys latus, planus et carpos fructus). Pycnidia dimidiata, subsuperficialia, membranacea, effusa, astoma, rufa; sporulæ continuæ, falcatæ, hyalinæ.
- 1. Platycarpium fructigenum Karst., l. c. p. 10. Pycnidiis effusis, 7577 capsulas ambientibus, raro punctiformibus, obscure rufis; sporulis falcatis, 20 × 4-5; sporophoris sporulâ longioribus.

Hab. in capsulis vivis Salicis myrtilloidis prope Kuopio Fenniæ (Lönnboнм).

- LOPHODERMOPSIS Speg., Fungi Chilenses (1910) p. 175 (Etym. Lophodermium et opsis aspectus). Pycnidia hypodermica, hysterioidea, non dimidiata, nigra; sporulæ cylindraceæ, catenulatæ. A Leptostromate differt pycnidiis semper hypodermicis et præcipue sporulis catenulatis.
- 1. Lophodermopsis hysterioides Speg., l. c. pag. 175, cum icon 7578 Pycnidiis ellipsoideis v. subdiscoideis, 150-200  $\mu$ . long., 150  $\mu$ . d., coriacellis, opacis, rima angusta dehiscentibus; sporulis rectis, utrinque subtruncatis, 4-6  $\times$  1, hyalinis, eguttulatis, in catenulas simplices, 40-50  $\mu$ . long. digestis.

Hab. in foliis dejectis subputrescentibus Lardizabalæ biternatæ in silvis Cerro Caracol de Concepción, Chile Americæ austr. — Est status pycnidicus Lophodermii hysterioidis (Pers.) Sacc.

## Sect. 2. Phæosporæ.

PIROSTOMA Fr. — Syll. III p. 653, XIV p. 996, XVIII p. 429.

Pirostoma tetrapsecadiosporium Da Camara, Mycetæ aliquot Theo-7579 bromæ Cacao in Sancti Thomé Insula, Lisboa (1910) p. 5, tab. VI, fig. 8-11. — Pycnidiis dimidiatis, hemisphæricis, excipulo crasso aterrimoque, sparsis, raro gregariis, initio ostiolo cuticula velato demumque libero, 500-650 μ. diam.; sporulis cylindraceis v. elli-

psoideis, continuis, rectis, utrinque rotundatis, fuligineis, plerumque quatuor-guttulatis, 25-30 × 15-18; sporophoris non visis.

Hab. in cortice Theobromæ Cacao in ins. St. Thomé. (J. J. DE ALMEIDA et CANNAS MENDES).

## ASTEROSTOMELLA Speg. — Syll. X p. 423, XVIII p. 430.

1. Asterostomella dispar Speg., Myc. Argent. V, pag. 397, in Anal. 7580 Mus. Nac. Buenos Aires XX (1910). — Subiculo tenuissimo matrici arcte adnato glabro, ex hyphis rectiusculis 5-6 μ. cr. dense intertextis fuligineis atque hyphopodiis breviter cylindraceis alternis ornatis composito; pycnidiis subiculo insidentibus laxe gregariis scutato-dimidiatis, 100-120 μ. diam., atris, opacis, margine fimbriatulis, stellatim dehiscentibus; sporulis obovatis, 24-26 × 16-18, pergrosse 1-guttulatis, fuligineis, levibus, subopacis.

Hab. ad folia viva Styracis leprosæ in silvis prope Puerto Léon Misiones Argentina America austr. — Sistit statum

pycnidicum Asterince disparis Speg.

2. Asterostomella Caperoniæ Speg., Myc. Argent. V, p. 396, in Anal. 7581 Mus Nac. Buenos Aires XX (1910). — Plagulis minutis gregariis, confluentibus, 1-10 mm. diam., atris, setulis pusillis 50-75 × 5, pluriseptatis, apice conidium cylindraceum fere semper 3-septatum, 15-30 × 4-5 gerentibus ornatis; pycnidiis scutato-dimidiatis, 90-100 μ. diam., medio plagularum laxe insidentibus, centro stellatim dehiscentibus, margine denticulato-fimbriatis, subopace fuligineis; sporulis obovatis, 18-22 × 10-12, sæpius grosse 1-guttulatis levibus, subopace fuligineis.

Hab. ad folia viva Caperoniæ palustris in pratis prope Bompland Misiones, Argentina America austr. (P. JORGENSEN).

Asterostomella Strophanthi P. Henn, Engl. Jahrb. XXXVIII (1905) 7582
 p. 125. — Pycnidiis centro pellucidis, dehiscentibus, ad marginem radiato-stellatis; sporulis ovoideis, breve pedicellatis, atro-castaneis, continuis, 16-22 × 10-14.

Hab. in foliis Strophanthi hispidi, Lome Togo Africae centr. — Status pycnidicus Asterinæ Strophanthi.

4. Asterostomella africana Syd., Englers Bot. Jahrbüch. 45 Bd. (1910) 7583 p. 264. — Pycnidiis amphigenis, in mycelio ex hyphis repentibus varie ramosis anastomosantibus parce septatis 3,5-4,5 μ. cr. hyphopodia alternantia 1-septata stipitata c. 8-14 × 4-7 gerentibus, brunneis composito insidentibus, aggregatis, radiatim contextis, centro perforatis, stellatim dehiscentibus, atris, 70-110 μ. diam.;

sporulis ellipsoideis v. piriformibus, continuis, levibus, brunneis,  $13\text{-}20 \approx 10\text{-}15$ .

Hab. in foliis Tylachii africani, Kibwezi Africa trop. Britannica (Scheffler). — Est probabiliter status pycnidicus Asterinæ cujusdam.

5. Asterostomella Tremæ Speg., Myc. Argent. V, p. 397, in Anal. 7584 Mus. Nac. Buenos Aires XX (1910). — Plagulis suborbicularibus atris, 2-5 mm. diam., tenuiter fibrillosis ex hyphis gracilibus olivaceis 4-5 μ. cr., septulatis, alterne ramulosis et hyphopodiatis constitutis; pycnidiis laxe gregariis, dimidiatio-scutatis, 60-100 μ. diam., astomis, margine denticulatis glabris; sporulis ellipsoideis, 20-22 × 10-12, sæpius grosse biguttulatis, subopacis, fuligineis.

Hab. ad folia viva Tremæ micranthæ prope Puerto Léon Misiones Argentina Amer. austr.

# Sect. 3. Phæodidymæ.

PELTISTROMELLA von Höhnel, Ergebn. Bot. Exp. Südbrasil. 1901, Denk. k. Ak. d. Wiss. Wien Bd. LXXXIII (1907) Extr. p. 35 (Etym. a pelte scutum et stroma v. potius a gen. Peltistromate, cui affine). — Stroma depresse scutatum, superficiale, radiosum, membranaceum, pluries ostiolatum loculigerum; sporulæ brunneæ, biloculares; sporophora simplicia, brevia, apice monospora. — Gen. Peltistromati et Phragmopelti affine.

Peltistromella brasiliensis v. Höhnel, l. c. — Stromatibus super- 7585 ficialibus, irregulariter rotundatis, pluries ostiolato-verrucosis; ostiolis irregulariter rotundatis v. elongatis usque ad 100 μ. diam., 0,5-2 mm. latis, 5-10-locularibus, membranaceis; sporulis paucis, elongatis v. ovoideis, supra rotundatis, infra leviter cuneato-obtusis, bilocularibus, obscure brunneis, ima basi hyalinis, 32-36 × 14-16; sporophoris simplicibus, 16 × 3-5.

Hab. in folio arboris cujusdam « Fazenda Bella Vista » in districtu urbis S. Cruz ad flumen Rio Pardo, Sao Paulo Brasilia, Amer. austr.

## Sect. 4. Hyalodidymæ.

LEPTOTHYRELLA Sacc. — Syll. X p. 426, XI p. 557, XVIII p. 432.

Leptothyrella llicis P. Henn., Engl. Jahrb. XXXVII (1905) p. 164. 7586
 — Maculis fuscidulis v. atris; pycnidiis hypophyllis gregarie sparsis v. confluentibus, discoideis, rotundatis, radiato-membranaceis, atris, c. 1 mm. diam.; sporophoris hyalinis, filiformibus c. 2 μ. cr.; sporulis oblonge fusoideis, utrinque obtusiusculis, curvulis, continuis, guttulatis, dein medio 1-septatis, hyalinis v. flavidulis, 15-25 × 3-4.

Hab. in foliis Ilicis geniculatæ, Mt. Yanare prov. Tosa Japoniæ (Yoshinaga).

2. Leptothyrella Epilobii von Höhnel in Strasser, III, Wien Nachtr. 7587 Pilze Sonntagb., Verh. zool. bot. Gesell. (1905) p. 619. — Pycnidiis immersis, depressis, dimidiatis, c. 200 μ. latis, nigris; parietibus obscure brunneis, grosse pseudoparenchymaticis, astomis, irregulariter se lacerantibus; sporophoris brevibus; sporulis bilocularibus, rectis v. curvulis, hyalinis, elongato-piriformibus v. subclavulatis, loculo superiori duplo longiore, 19-26 × 7.

Hab. in caulibus Epilobii angustifolii, Sonntagberg, Austria inf.

## Sect. 5. Hyalophragmiæ.

**DISCOSIA** Lib. — Syll. III p. 653, X p. 426, XI p. 557, XIV p. 996, XVI p. 992, XVIII p. 434.

1. Discosia Blumencronii Bubák in Handel-Mazzetti Bot. Reise Pont. 7588 Randgeb. in Ann. Naturhist. Hofmus. Wien XXIII (1906) p. 106, t. V, f. 3 a-d. — Pycnidiis amphigenis, dispersis v. irregulariter aggregatis, reniformibus vel late falcatis, subepidermicis, deinde epidermidem protrudentibus, atris, nitidis, 180-360 μ. longis, contextu atro, in uno latere concavis ibidemque poro conico apertis; sporulis cylindricis v. fusoideis, parum curvatis, utrinque rotundatis, 20-38 × 3-4, pallide olivaceo-brunneolis, 3-septatis, guttulatis, utrinque 1-ciliatis; loculis extimis multo brevioribus quam intimis; setis brevibus v. dimidium sporularum æquantibus; sporophoris cylindricis, rectis, 7-11 × 1,5-2, hyalinis.

Hab. in foliis emortuis Rhododendri pontici in montibus Ponticis Anatoliæ (Blumencron).

2. Discosia Rhododendri Speschn., Monit. Jard. bot. Tiflis (1906) 7589 fasc. 4, p. 10. — Disc. Theæ Cav. affinis, a qua differt pycnidiis minutis usque ad 70 μ. cr.; sporulis 4 μ. cr.

Hab. in foliis Rhododendri, Zichidziry prope Batum Caucasia.

3. Discosia Thesii Hollós, Ann. Mus Nat. Hungar. V (1907) p. 466. 7590 — Pycnidiis sparsis, superficialibus, disciformibus, late apertis, fuscis, 600-700 μ. diam., contextu celluloso; sporulis subfalcatis, vertice acutis, inferne rotundatis, biseptatis, non constrictis, granulosis v. pluriguttulatis, hyalinis, 26-30 × 3-4, vertice setula 20-30 μ. longa auctis, deorsum sub apice setula breviore auctis; sporophoris cylindraceis 30 μ. longis.

Hab. in caulibus siccis Thesii linophylli prope Nagy-

Körös Hungariæ.

4. Discosia Artocreas (Tode) Fr. — Sacc. Syll. III, p. 653. — var. 7591 Juglandis C. Mass. Osserv. fitol. in Madonna Verona v. II (1908) Extr. p. 10. — Sporulis cylindraceo-allantoideis, triseptatis, subchlorinis, 16-20 × 2-3, utrinque sub apice rotundato setigeris, setulis 10-12 μ. long.

Hab. in foliis marcescentibus Juglandis regiæ prope Tregnago Verona Italiæ boreali. — Var. sibirica Sacc., Myc. Sibir. pug. III in Malpighia X (1896) pag. 22 extr., tab. 6, fig. 3. — Pycnidiis oblongis, dein umbilicatis; sporulis 15 × 3, olivaceis, 3-septatis, setulis 12-15 × 0,5. — In caulibus emortuis Geranii sp. ad fl. Tibek Sibiriæ asiaticæ.

5. Discosia Pini Heald, Mycologia I (1909) pag. 216, tab. XIV. — 7592 Pycnidiis sparsis v. subgregariis, superficialibus, applanatis, nigris, opacis, glabris, ostiolo subpertusis; ellipsoideis v. leniter lobulatis, 225-362 × 120-165; sporulis oblongo-fusiformibus, 3-septatis, hyalinis v. leniter fumosis, 12-20 × 2,6, 2-ciliatis, ciliis 10-12 μ. longis.

Hab. ad hypocotylem viventem Pini ponderosæ, Forest Reserve, Halsey, Nebraska Amer. bor.

# Sect. 6. Scolecosporæ.

HYSTERIDIUM Karst., Acta Soc. pro Fauna et Fl. fenn. XXVII, 4 (1905) p. 10 (Etym. *Hysterium*, cui habitu subsimile). — Pycni-

dia dimidiata, lanceolata; sporulæ fusoideo-bacillares, 3-septatæ, e hyalino lutescentes, muticæ.

1. Hysteridium Phragmitis Karst., l. c. p. 10. — Pycnidiis sparsis, 7593 hysterioideis, atris, minutis; sporulis rectis, 20 × 3.

Hab. in culmis aridis Phragmtis prope Kuopio Fennia.

MELOPHIA Sacc. — Syll. III p. 658, X p. 428, XI p. 557, XIV p. 997, XVI p. 992.

1. Melophia Eugeniæ Ferd. et Winge, Botanisk Tidsskr. XXIX (1908) 7594 p. 20, tab. II, fig. 9. — Stromatibus epiphyllis, minutis, applanato-convexulis, orbicularibus, rugulosis, usque ad 4 mm. diam., aterrimis, nitidis, zonula angusta rufo-brunnea cinctis, in hypophyllo maculas convexo-depressas, dilute brunneas formantibus; loculis in stromate singulo pluribus, immersis, applanatis, magnitudine varia, inferne strato nigrefacto limitatis, superne epidermidem convexam levantibus, nondum apertis; sporulis allantoideo-filiformibus, falcatis, nonnullis vermiformibus, 6-13 × 1-1,5, hyalinis.

Hab. ad folia viva Eugeniæ sp. in insula St. Thomas Indiæ occ. (RAUNKIAER).

**LEPTOSTROMELLA** Sacc. — Syll. III p. 625, X p. 420, XI p. 555, XIV p. 994, XVI p. 990, XVIII p. 426.

Leptostromella Hirfellæ P. Henn, Hedw. XLVII (1908) p. 270. 7595
 — Pycnidiis epiphyllis gregariis, dimidiato-scutellatis, atris, radiato-cellulosis, margine fibrosis, poro pertusis, 300-500 μ. c. cr.; sporulis filiformibus utrinque acutis, pluriguttulatis, hyalinis, 25-35 × 1.

Hab. in foliis Hirtellæ americanæ Aubl., Amazonas, Juruá-Miry, Brasilia.

2. Leptostromella nivalis R. Maire, Champ. Asie Mineure, Bull. Soc. 7596 Sc. de Nancy (1906) Extr. p. 8. — Pycnidiis applanatis, nigris, opacis, oblongis v. ellipsoideis, plus minusve irregularibus, subinde confluentibus, rima sæpius obsoleta; sporophoris simplicibus, hyalinis, rectis, dense stipatis, 13-18 × 1,5-2; sporulis acrogenis, hyalinis, levibus, solitariis, cylindraceis, 8-11 × 1,5-2.

Hab. in culmis aridis Alopecuri textilis, in M. Argæo, 3000 m. alt., Anatolia. — Verisimiliter status pycnidicus Hadotice nivalis R. Maire.

ACTINOTHYRIUM Kunze — Syll. III p. 658, X p. 428.

Actinothyrium callicola Speg., Fungi Paulist., Rev. Mus. La Plata 7597 t. XV, p. 40 (1908). — Maculis epiphyllis callosis determinatis subiculo nullo; pycnidiis dimidiato-scutatis 30-60 μ. diam. membranaceis, contextu parenchymatico radiante fuligineo, ambitu vix denticulatis; sporulis arcuatulis utrinque acutatis 10-25 × 1, hyalinis, non v. 1-septatis.

Hab. ad folia languida Eugeniarum socio Actinothecio cal-

licola, Ipiranga Brasilia (USTERI).

2. Actinothyrium Drimydis Speg., Fungi Chilenses (1910) p. 176. — 7598 Maculis epiphyllis orbicularibus determinatis calloso-convexulis, 2-7 mm. diam., sordide pallescentibus; pycnidiis centro macularum .2-10-insidentibus, orbicularibus, scutato-dimidiatis, 75-100 μ. d., coriaceis, stellatim dehiscentibus; sporulis filiformibus utrinque obtusis, 30 × 1,25, hyalinis, continuis, e sporophoro minutissimo communi geminatim v. ternatim oriundis.

Hab. in foliis vivis Drimydis Winteri prope Ciudad de Valdivia, Chile Amer. austr.

3. Actinothyrium minutum v. Höhnel, Fragm. Mykol. VIII (1909) 7599 p. 78. — Pycnidiis hypophyllis, sparsis, dimidiato-scutatis, superficialibus, rotundatis, nigris, 120-150 μ. latis; membrana supra tantum evoluta, olivaceo-flavo-brunneis, ad marginem pallidiore, ex cellulis 3-4,5 μ. latis ramose seriatis partim formata et pycnidia substellata fingentibus; margine integro v. breviter fimbriato in membranam subicularem tenuem, hyalinam, ex hyphis 1-2 μ. cr. transeunte; basi tenui minute parenchymatico; sporophoris brevissimis; sporulis hyalinis, acicularibus, rectis v. leniter curvulis, supra angustatis acutatisque, infra obtusis, demum 4-7-locularibus, contextu minute granuloso, 33-52 × 2-3.

\*\*\* #ab. in foliis vivis Paratropiæ in nemoribus Tjibodas Java.

CYLINDROTHYRIUM Maire, Bull. Soc. Bot. Fr. LIV (1907) p. CLXXXIX (Etym. cylindros et thyrium pro Leptothyrium). — Pycnidia superficialia, clypeata, facile secedentia, astoma, irregulariter dehiscentia; sporulæ bacillares, continuæ, hyalinæ, leves, solitarie in sporophoris cylindraceis acrogenæ. — Est Leptothyrium scolecosporum ed in tabulis (Syll. fung. XIV, p. 45) occupabit n. 9.

1. Cylindrothyrium subericola Maire, l. c. p. CLXXXIX. — Maculis 7600 nullis; pycnidiis nigris, rugosis, ambitu anguloso, contextu membranaceo; sporulis bacillaribus, rectis v. curvulis, hyalinis, levi-

bus, utrinque rotundatis v. basi truncatis,  $15-30 \times 2-3$ ; sporophoris hyalinis, cylindraceis,  $15-18 \times 2,5$ .

Hab in pagina inferiori foliorum aridorum Quercus Suberis, inter Tlemcen et Hafir Africæ bor.

# Fam. 4. Excipulaceæ SACC.

### Sect. 1. Hyalosporæ.

**EXCIPULA** Fr. — Syll. III p. 665, X p. 432, XI p. 558, XVI p. 999, XVIII p. 437.

1. Excipula Dictamni Fairm. Ann. Myc. VIII (1910) p. 325. — Pycni- 7601 diis superficialibus, glabris, globosis, cupulatis, ostiolo minuto præditis; sporophoris hyalinis?; sporulis ellipsoideis, utrinque rotundatis, continuis, hyalinis, 6-8 × 3.

Hab. in caule Dictamni Fraxinellæ cult., Lyndonville N. Y. Amer. bor.

GODRONIELLA Karst. - Syll. III p. 665, XIV p. 999, XVIII p. 436.

1. Godroniella ? argentinensis Speg., Myc. Argent. V, pag. 398, in 7602 Anal. Mus. Nac. Buenos Aires XX (1910). — Excipulis patellaribus 200-350 μ. diam., inferne convexulis atro-olivaceis subsessilibus, superne planiusculis pallidioribus, superficialibus, sparsis vel laxe gregariis; margine minute denseque fimbriatulis; sporulis e globoso subcuboideis, primitus eximie catenulatis, hyalinis.

Hab. ad folia arida putrescentia Tillandsiæ cujusdam in hortis La Plata Argentina America austr.

- NEOPATELLA Sacc. in Sydow Ann. Mycol. VI (1908) p. 530 (Etym. a neos novus, et Patella pro Heteropatella). Pycnidia erumpenti-superficialia, globoso-depressa, membranaceo-subcarbonacea, nigra, mox centro umbilicata et late subcirculariter dehiscentia; sporulæ eximie falcatæ, subsessiles, continuæ, muticæ, hyalinæ. Ab affini Heteropatella sporulis muticis sporophoris brevissimis subnullis imprimis dignoscitur. Prof. v. Höhnel, Fragm. Myk. VII, p. 73, autumat hoc genus cum versiformi Dothichiza collidere, sed habitus et sporulæ contrarium docent.
- 1. Neopatella Straussiana Sacc., Ann. Mycol. VI (1908) pag. 530, 7608

t. XXVI, fig. 3. — Pycnidiis gregariis, 200-280  $\mu$ . diam.; contextu distincte celluloso, cellulis anguloso-rotundatis, 8-9  $\mu$ . diam., atro-fuligineis; sporulis copiosis, falcatis, utrinque acutis, 17-19  $\approx$  3, subsessilibus, granuloso-farctis, hyalinis.

Hab. in caulibus emortuis Dianthi scoparii, Berg Raswend Persiæ occ. (STRAUSS).

#### AGYRIELLOPSIS v. Höhn. — Syll. XVIII p. 438.

1. Agyriellopsis difformis v. Höhn., Fragm. Mykol. II, in Sitzb. k. Ak. 7604 Wiss. Wien CXV, Abt. I (1906) p. 29. — Pycnidiis nigris, opacis, rotundato-verruciformibus v. elongatis, superficialibus, astomis, demum supra irregulariter disruptis, 100-300 μ. latis, 150 μ. circ. altis; parietibus circ. 10 μ. cr. minute parenchymaticis; nucleo ex fasciculis 6-8 hypharum simplicibus v. ramosis verticalibus brevioribus v. longioribus et partim operculum attingentibus formato; hyphis brunneis breviter articulatis 4-5 μ. cr.; fasciculis æque ac parietibus pycnidiis hyphis sporophoris hyalinis v. dilute brunneis fasciculatim ramosis 8-12 μ. long. tenuissimis præditis; sporulis numerosissimis, hyalinis, continuis, 2-3 × 1.

Hab. in ligno nudo sicco Tiliæ Hinterhallbach, Reisalpe Austriæ inf.

**DOTHICHIZA** Lib. — Syll. III p. 671, X p. 432, XI p. 559, XIV p. 1000, XVIII p. 437.

1. Dothichiza Pini Sacc., Ann. Myc. III (1905) p. 168. — Pycnidiis 7605 hinc inde dense gregariis, erumpenti-superficialibus, punctiformibus, aterrimis, lenticularibus, 200-250  $\mu$ . diam., tandem concaviusculis et ore lato margineque eroso apertis; contextu membranaceo, atro-fuligineo; sporulis oblongis, curvulis, utrinque obtusulis,  $4-5 \approx 2$ , eguttulatis, hyalinis, acro-pleurogenis; sporophoris parallele stipatis, e strato proligero fuligineo oriundis, bacillaribus, sursum breviter et parce denticulato-ramulosis.

Hab. ad corticem Pini silvestris, Tamsel in Marchia, Germania (P. Vogel). — Forte huc spectat Dendrophoma Pini Richon imperfecte descripta.

2. Dothichiza exigua Sacc., Ann. Mycol. VI (1908) p. 562, t. XXIV, 7606 fig. 7. — Pycnidiis laxe gregariis, acicolis, erumpenti-subsuperficialibus, globulosis, totis nigris, 300-350 μ. diam., deorsum dein incrassato-substipitatis, initio subclausis demum cupulato-apertis; contextu eximie celluloso, fuligineo, cellulis 9-11 μ. diam.; sporu-

lis ellipsoideis e latere reniformibus, e fronte 6-8  $\times$  4, e latere 2,5  $\mu$ . er., hyalinis; sporophoris prælongis sæpius iterato-furcatis, filiformibus, 75-85  $\times$  1,5.

Hab. in acubus Pini Strobi morientibus, Tamsel Germaniæ (P. Vogel). — Doth. ferruginosæ subaffinis. Verisimiliter st. pycnidicus Cenangiaceæ cujusdam.

DISCULA Sacc. — Syll. III p. 674, X p. 433, XVIII p. 438.

1. Discula Ceanothi Bub. et Kab., Hedwigia XLVII (1908) p. 362. 7607 — Pycnidiis sparsis v. raro subgregariis, quandoque confertis confluentibusque, epidermide pustulata tectis eamque demum disrumpentibus, poro v. rima apertis, contextu supra parenchymatico brunneo infra incompleto; sporulis ex elongato cylindraceis, subfalcatis, raro rectis, 13-18 × 2,5-3,5, utrinque angustatis vel raro rotundatis, contentu granuloso; sporophoris simplicibus, basi cæspitoso-intricatis, cylindraceis, 10 × 2, hyalinis.

Hab. in ramis siccis Ceanothi americani prope Turnau Bohemia (KABAT).

**SPORONEMA** — Desm. Syll. III p. 677, X p. 434, XIV p. 1000.

1. Sporonema Robiniæ Sacc. — Ann. Mycol. VI (1908) p. 566. — 7608 Pycnidiis laxe gregariis vel subsparsis subcutaneo-erumpentibus, minutis, nigris, plano-scutellatis, rima oblonga, rimosa dehiscentibus, 150 μ. diam., membranaceis, contextu inæqualiter parenchymatico fuligineo; sporulis ex ovato breve fusoideis, utrinque acutulis, 8-9 ≈ 2,5-3, plasmate bipartito, 1-septatis, non v. vix constrictis, hyalinis, sessilibus.

Hab. in parte exter. leguminum subputrescentium Robiniæ Pseudacaciæ, Lyndonville N. Y. Amer. bor. (FAIRMAN).

2. Sporonema epiphyllum (Fr.) Shear, Bull. Torr. Bot. Club XXXIV 7609 (1907) p. 309. — Ita distinguendum Sporonema obturatum (Fr.) Sacc. var. epiphyllum (Fr.) Sacc. — Syll. III, p. 678 — seu Sphæria obturata var. epiphylla Fr. — Pycnidiis sparsis erumpentibus, globosis, astomis, primo levibus, deinde rugoso-verruculosis, contextu inferne pseudoparenchymatico, superne convergenti-prosenchymatico, corneis, atris, majusculis; sporophoris vix simplicibus, longitudine varia; sporulis 1-3-acrogenis, cymbiformibus v. subrectis, medio obsolete septatis v. plasmate utrinque retracto, 10-12,5 × 2-2,5 (Starbäck).

Hab. in foliis Vacciniorum in Suecia, Britannia, Amer. bor.

- Cfr. Starbäck, Sphær. imperf. cognitæ, p. 57 (Clinterium obturatum Fr.) et Shear l. c.
- 3. Sporonema pulvinatum Shear, Bull. Torr. Bot. Club XXXIV (1907) 7610 pag. 308, Cranberry Dis. p. 46, tab. 5, fig. 25-28. Pycnidiis amphigenis, epidermide circumdatis, obscure brunneis, pulvinatis, sæpe collabescentibus, 300-420 μ. diam., 100-150 μ. cr., unilocularibus; ostiolo nullo; sporulis inæquilateris v. subcurvulis, continuis, 6-8 × 2-2,5, hyalinis v. in massa leniter viridi-flavis; sporophoris simplicibus, basi quandoque expansis; sporulis maturis leniter longioribus.

Hab. in foliis Vaccinii macrocarpi in America bor.

4. Sporonema Oxycocci Shear, Bull. Torr. Bot. Club XXXIV (1907) 7611 pag. 308, Cranberry Dis. p. 41, tab. V, fig. 17-19. — Pycnidiis excipuliformibus, basi incrassatis, supra gradatim attenuatis, epidermide circumdatis et demum erumpentibus, depresse globosis, gregariis v. sparsis, amphigenis, 50-100 μ. diam., quandoque collabescentibus, irregulariter erumpentibus; sporophoris simplicibus, oblongis v. subglobosis, brevissimis; sporulis hyalinis, cylindraceis, angustis, continuis, rectis, 17-19 × 3-4, contentu homogeneo.

Hab. in foliis dejectis Vaccinii macrocarpi, in Amer. bor.

5. Sporonema rameale Desm. — Syll. III, p. 678 — var. crassispo-7612 rum Moesz, Gomb. Budap. I (1909) pag. 22, t. II, f. 5 a-b (Bot. Közlem.). — A typo differt sporulis crassioribus nempe 12-18 × 6-6,5.

Hab. in ramis siccis Sambuci nigræ prope Budapest Hungariæ.

6. Sporonema laricinum Saccardo, Not. Myc. VI, Ann. Myc. v. III 7618 (1905) pag. 513. — Pycnidiis gregariis erumpenti-superficialibus, subdisciformibus, supra depressis, 300-400  $\mu$ . diam., glabris, nigris, centro rimose v. radiatim dehiscentibus; nucleo farcto griseo-atro; contextu crassiusculo minute parenchymatico, fuligineo; sporulis sessilibus, ellipsoideis, utrinque acutulis,  $4 \times 2.5$ , rectis, eguttulatis, hyalinis.

Hab. in ramis corticatis non omnino emortuis, Laricis europææ, Agordo, Belluno, Ital. bor. Aug. 1905 (Dom. Saccardo).

DINEMASPORIELLA Speg., Myc. Argent. V, p. 366, in An. Mus. Nac. Buenos Aires XX (1910) (Etym. a *Dinemasporium*, cujus est analogum genus, sed calvum). — Pycnidia innato-erumpentia, minuta, Syll. fung. XXII (VI-1913)

atra, glabra, ostiolata, coriacella; sporulæ subcylindraceæ medio 1-septatæ, utrinque 1-ciliatæ, hyalinæ.

1. Dinemasporiella poiophila Speg., l. c. p. 366, cum icon. — Pycni-7614 diis gregariis sæpius seriatis, parenchymate innatis, epidermide tectis dein erumpentibus et plus minusve exertis, lenticulari-ellipsoideis, 130-150 × 90-100, demum subhysterioideo-hiantibus; sporulis leniter curvulis utrinque subrotundatis, 18-20 × 2-2,5, uniseptatis ad septum non constrictis, setulis 10-15 × 0,5 concoloribus arcuatulis.

Hab. ad folia arida Chloridis distichophyllæ, Colonia Libertad Entre Rios Argentina Amer. austr.

**DINEMASPORIUM** Lév. — Syll. III p. 683, X p. 438, XI p. 560, XIV p. 1001, XVIII p. 440.

Dinemasporium hispidulum (Schr.) Sacc. — Syll. III pag. 685 — 7615 var. brachychætum Speg., Myc. Arg. V, p. 399, in An. Mus. Nac. Buenos Aires XX (1910). — A typo differt sporulis 16 × 1,5 sed præcipue setula minima 2-3 × 0,5 armatis.

Hab. ad palos diu intemperiis expositos Robiniæ Pseudoacaciæ, La Plata Argentina Amer. austr.

2. Dinemasporium intermedium Speg., Myc. Argent. V, pag. 399, in 7616 Anal. Mus. Nac. Buenos Aires XX (1910). — Excipulis subpatellaribus solitariis v. laxe gregariis ligno denudato cinerescenti insidentibus, 0,4-1 mm. diam., extus atris, setosis, intus pallide olivascentibus; setulis erectis sursum sensim attenuatis atque acutatis, simplicibus, 250-1000 × 10-20, nigris opacis basi non bulbosis; sporulis subnavicularibus utrinque subacutiusculis, 10 × 2,5, atque in setam ipsas æquantem obliquam productis, hyalinis, eguttulatis v. minute biguttulatis.

Hab. ad ramos languidos v. emortuos Citri Aurantii pr. Bella Vista Argentina Amer. austr. (J. M. Huergo). — D. decipienti (De Not.) Sacc. valde similis species sed sporulis duplo majoribus distincta.

3. Dinemasporium decipiens (De Not.) Sacc. — Syll. III, p. 685 — 7617 var. Yerhæ Speg., Anal. Mus. Nac. Buenos Aires t. XVII (1908) p. 137. — Cupulis sparsis orbiculari-ellipsoideis, 0,5-1 mm. diam., nigris, margine setulis patulis continuis acutis v. obtusulis, atris, subopacis, 50-150 × 6-8 ornatis; sporulis subnavicularibus, 5-8 × 2-3, utrinque setigeris setula supera lateraliter patente, quam infera duplo breviore, setula infera sporulam æquante, erecta.

Hab. in disco truncorum excesorum Ilicis paraguariensis in silvis Misiones Argentine.

4. Dinemasporium argentinense Speg., Myc. Argent. V, pag. 398, in 7618 An. Mus. Nac. Buenos Aires XX (1910). — Excipulis laxe gregariis v. solitariis elliptico-elongatis 300-400 × 120-150, longitudinaliter rimose dehiscentibus, coriacellis, contextu indistincto, setulis subrigidulis vix flexuosis apice subacutiusculis basi non v. vix incrassatis 150-180 × 4-5, continuis v. 2-3-septatis, fuligineis, pellucidis vestitis; sporulis subcylindraceis utrinque rotundatis, 18-20 × 5, non v. vix lateraliter angulatis, leniter curvulis, setula supera valde obliqua longiore 12-15 × 0,75-1, infera recta brevi 6-8 × 1, ornatis, continuis hyalinis.

Hab. ad culmos aridos Stipæ caudatæ in pratis Fuerte Argentina Amer. austr.

5. Dinemasporium Oryzæ I. Miyake, Pilze Reispfl. Japan, (Journ. College Agricult. II (1910) p, 261, t. XIV, f. 64-67. — Pycnidiis superficialibus, 5-20 setulis nigris rectis, crassis, 2-3 v. usque ad 5-6 μ. diametra pycnidii superantibus vestitis, inverse hemisphæricis, 140-160 μ. diam., nigris; sporophoris simplicibus filiformibus, inferiori parte nascentibus, hyalinis, 15 × 1,5; sporulis ellipsoideis v. ovoideis, curvulis, hyalinis, utrinque setula sporulâ longiore præditis, 7,5-9 × 2,5-3,5.

Hab. in foliis Oryzæ sativæ Gifu Japonia.

6. Dinemasporium microsporum Saccardo — Syll. III, p. 684 — \*D. 7620 pusillum Saccardo, Not. Myc. VI, Ann. Myc. III (1905) p. 514. — Pycnidiis ½ mm. diam., excipulo angustissime prosenchymatico brunneo; setis 120-140 × 4-5, septulatis, aterrimis; sporulis allantoideis, 6,5-8 × 2, hyalinis, utrinque setula 6-7 × 1, obliqua auctis.

Hab. in foliis putrescentibus graminum, Selva, Treviso Ital. bor. (Antonia Saccardo).

7. Dinemasporium Geasteris Hollós, Ann. Mus. Nat. Hung. V (1907) 7621 p. 284. — Pyenidiis sparsis, superficialibus, cupulato-hemisphæricis, 210-240  $\mu$ . d.; setulis rigidis, atris, acutis, eseptatis, 120-240  $\approx$  6-8; sporulis continuis, cylindraceis, falcato-curvulis, eguttulatis, hyalinis, 10-14  $\approx$  2-2,5, utrinque setulâ 10-14  $\mu$ . longa obliqua auctis.

Hab. in stratu interno exoperidii Geasteris pseudolimbati, prope Kecskemét Hungariæ.

SIREXCIPULA Bubák, Myc. Beitr., Hedw. Bd. XLVI (1907) p. 295 (Etym. seiros catena et Excipula). — Pycnidia globosa, subepider-

moidea, dein superficialia, coriacea, nigra, primum clausa, dein poro rotundato aperta, demum pezizoidea; sporophora cylindracea, arcte conferta, simplicia, hyalina; sporulæ apicales, catenulatæ, breviter cylindraceæ, hyalinæ.

Sirexcipula Kabatiana Bubák, Myc. Beitr. Hedwigia Bd. XLVI 7622 (1907) pag. 295. — Pycnidiis amphigenis, maturis superficialibus pezizoideis, ex obscure brunneis nigris, opacis, coriaceis 300-400 μ. diam.; contextu parenchymatico, intus pallidiori; sporulis breviter cylindraceis, apice obtusis, rectis, 4-6 × 3-3,5, hyalinis, grosse guttulatis; sporophoris cylindraceis, apice subconoideis, 12-18 × 2-3, hyalinis, distincte guttulatis.

Hab. in foliis putrescentibus Funkiæ Sieboldianæ, prope Turnau Bohemia (KABAT). — A Siropatella differt sporulis unilocularibus.

#### Sect. 2. Phæosporæ.

- CHÆTODISCULA Bub. et Kab., Hedw. L (1910) p. 44. (Etym. chæte seta et Discula, h. e. Discula setulosa). Pycnidia hysterioideorimosa, innato-erumpentia demum oblongo- v. orbiculari-discoidea, margine fimbriata, nigra, carbonacea, parte libera cellulis olivaceo-brunneis, crasse tunicatis formata. Sporulæ continuæ, fusoideæ, olivaceo-brunneæ, sporophoris bacillaribus fultæ. Est quasi Discula setosa. Genus, ut nobis videtur, inter Chætomellam et Chætostroma fere medium.
- 1. Chætodiscula hysteriformis Bub. et Kab. Hedw. L (1910) p. 44, 7623 tab. I, f. 1-8. Pycnidiis gregariis, nigris 0,3-0,7 mm. long., interdum nitidulis, margine setoso-fimbriatis, setis rectis v. subcurvulis, 60 × 4, olivaceo-brunneis, sursum septatis, pallidioribus; sporulis breve fusoideis, utrinque obtusulis, olivaceis, 19-23 × 4-5,5, crasse 1-2-guttulatis granulosisque; sporophoris cylindricis ad 28 μ. longis, erectis v. leniter convergentibus, nigro-virentibus.

Hab. in foliis emortuis Typhæ latifoliæ pr. Münchengrätz Bohemiæ.

SCHOENBORNIA Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) p. 483 (Etym. ab Ad. von Schönborn). — Pycnidia primum subepidermica, globosa, clausa, dein nuda, applanata, infra setulosa, mollia; contextu extus nigro-virescenti, intus pallide flavescenti sub-

inde olivaceo-brunneo; sporulæ ex ellipsoideo fusoideæ, olivaceonigricantes; sporophora longa, cylindracea, unilocularia, pallide flavo-brunnea, apice subconoideo-constricta, subcircinnata, obscure olivaceo-brunnea.

Schoenbornia basidio-annulata Bubák, l. c. p. 484, tab. 5, fig. 1-4. 7624
 — Setulis parcis, 60-90 × 6,5-7, crassis, subrectis, parce septatis, pallide brunneis; pycnidiis 330-450 μ. latis, nigro-viridibus, mollibus, basi plectenchymaticis, pallide flavidis, hyphis longis præditis; sporulis 9-11 × 4-4,5, supra rotundatis, basi sæpe obtusatis, guttulatis; sporophoris 90 × 2, confertis, rectis v. curvis, apicem versus multiguttulatis.

Hab. in ramulis emortuis Spartii juncei prope Ulcinj Montenegro. — Gen. Phwodisculæ et Coniothyrellæ affine.

#### PHÆODISCULA Cub. — Syll. X p. 439, XVIII p. 441.

1. Phæodiscula pezizoides (Rabenh.) Sacc. et Trav. — Syll. XX, 7625 p. 325 — Tympanis pezizoides Rabenh. in Hoffm. Ic. anal. fung. p. 97, t. 23, f. I, 1-5 (1865). — Pycnidiis sessilibus initio globulosis dein patellatis, majusculis, superficialibus, gregariis ambitu ex orbiculari ellipticis, tenuiter marginatis, 4-6 mm. long., disco applanato atro-nitente, margine atro-brunneo; strato proligero minute celluloso, crassiusculo; sporulis ellipsoideis, 8-9 × 4 brunneis, biguttatis simulateque 1-septatis; sporophoris filiformibus, fasciculatis, sporulâ multo longioribus.

Hab. in ramis decorticatis emortuis dejectis Quercus prope Gross-Geran Germaniæ, socia Zignoëlla sinapisperma (Rabenh.) Sacc. et Tray.

# Sect. 3. Hyalodidymæ.

DISCELLA B. et Br. — Syll. III p. 687, X p. 440, XI p. 560,
XIV p. 1002, XVI p. 993, XVIII p. 442.

Discella Betulæ B. R. S. in Saccardo, Not. Myc. VI, Ann. Myc. 7626
 III (1905) pag. 509. — Pycnidiis subepidermicis, disciformibus, astomis, epidermide fissa cinctis, nigricantibus, glabris intus pallide griseis, 500-600 μ. diam; sporulis fusoideis, utrinque acuminatis, rectiusculis, medio 1-septatis, non constrictis 12-17 × 2,5-3, hyalinis, in sporophoris dense fasciculatis, filiformibus arrecto-ramosis, 40-50 μ. long. acrogenis.

Hab. in ramis junioribus emortuis corticatis Betulæ albæ, Houffalige Belgii (Maria Rousseau).

2. Discella populina Sacc., Ann. Myc. VI (1908) p. 562, tab. XXIV, 7627 fig. 4. — Pycnidiis hinc inde dense gregariis et pustulas elevatas, 2 mm. latas peridermio rupto cinctas generantibus, inæqualiter discoideis, sæpe suboblongis, 200 μ. diam., demum subcupulato-apertis margineque subinde lobulato præditis, totis nigris; sporulis fusoideis v. clavulatis, utrinque acutulis, 16-17 ≈ 5, hyalinis, sub medio 1-septatis, non constrictis; sporophoris fasciculatis bacillaribus, hyalinis 14-15 ≈ 2.

Hab. in ramis subvivis Populi albæ var. Bolleanæ, Tamsel Germaniæ (P. Vogel). — Ob pustulas peculiares, quasi mycocecidia, species vere notabilis.

PSEUDOLACHNEA Ranojevic, Ann. Mycol. VIII (1910) pag. 393 (Etym. pseudes falsus et Lachnea). — Pycnidia immersa, erumpentia, sed basi semper immersa, peziziformia, setulis rigidis, ex hyphis flavo-brunneis parallele orientibus tecta; sporulæ biloculares, utrinque rostellatæ, hyalinæ; sporophora dichotomice ramosæ. — Gen. setulis et rostellis insigne, Pseudopatellæ proximum.

1. Pseudolachnea Bubakii Ranojevic, Ann. Mycol. VIII (1910) p. 393, 7628 fig. 6-11. — Pycnidiis primo globosis, conoideis, dein rotundatis v. elongatis, peziziformibus, demum late apertis, solitariis v. crebre distributis, 1,5 mm. diam., nigris; setulis crebris, rectis, subincurvatis, brunneis, nigro-brunneis, demum nigris, apice pallidioribus, continuis, usque ad 465 μ. long., 5-11,5 μ. crassis; sporulis fusoideis, curvatis, medio septatis, non constrictis, 10-14,5 × 1,5-2, rostellis usque ad 2 μ. long. præditis, hyalinis, fortiter congestis; sporophoris rectis v. subcurvulis, 1-3 dichotomice divisis, septatis, usque ad 52 μ. long., 1,5-2 μ. cr., hyalinis, fortiter congregatis.

Hab. in ligno Quercus et Tiliæ argenteæ, nec non in ramis dejectis Robiniæ, Cytisi, Juglandis, Pini, Laricis et in caulibus Cardui acanthoidis, Helianthi annui, pr. Belgrad Serbia.

# Sect. 4. Hyalophragmiæ.

EXCIPULINA Sacc. — Syll. III p. 688, X p. 441, XI p. 560, XIV p. 1002, XVIII p. 443.

1. Excipulina Lauri Alm. et Cam., Revista Agronom. IV (1906) 7629 p. 222, tab. IV, fig. 1-2; Bol. Soc. Brot. XXV (1908-1909) Extr. p. 56. — Pycnidiis primum sublenticularibus clausisque, dein patellatis, late apertis; sporulis elongato-fusoideis, hyalinis, rectis v. curvulis, triseptatis, utrinque rostellatis, 20-22 × 2,5-3.

Hab. in foliis siccis Lauri nobilis, socia Pleospora herbarum (Pers.) Rbh. Cerca de Bento pr. Coimbra Lusitania (A. Moller). 7630

2. Excipulina rostrata Syd., Ann. Mycol. IV (1906) p. 344. — Pycnidiis sparsis, subsuperficialibus, glabris, primo sphæroideo-clausis, dein late apertis et cupuliformibus, 300-400 µ. diam., atris, molliusculis, contextu radiato, subprosenchymatico; sporulis fusoideo-elongatis, indistincte 2-septatis, hyalinis, leniter curvulis, 16-21 × 2 1/2-3 1/2, apice in rostrum filiforme curvulum longissimum usque ad 30 p. longum sensim abeuntibus, ad septa non constrictis; sporophoris brevibus.

Hab. in caulibus emortuis Aquilegia leptoceratis, Big Cottonwood Canyon, Utah America bor. (A. O. GARRETT).

- JAPONIA v. Höhn. Fragm. Mykol. VII (1909) p. 67 (Etym. a patria Japonia). - Pycnidia superficialia, discoidea, infra breviter obconica tenuiterque insidentia, demum epidermidem rumpentia; extus carbonacea, parenchymatica intus molli-carnosa, ex hyphis radiantibus constituta; sporophora ramoso-cæspitosa; sporulæ solitariæ, hyalinæ, clavato-fusoideæ, pluri-septatæ, infra angustatosubpedicellatæ.
- 1. Japonia Quercus v. Höhn., l. c., p. 68. Sporulæ magnitudine 7631 variæ, 2-4-cellulares,  $30-60 \times 6$ .

Hab. in foliis Quercus glaucæ Japonia (Yoshinaga). — St. pycnid. alter Yoshinagaiæ, cujus asci maturi, teste v. Höhn. nondum innotuerunt.

# Sect. 5. Scolecosporæ.

PSEUDOCENANGIUM Karst. — Syll. X p. 445, XIV p. 1003, XVIII p. 446.

1. Pseudocenangium septatum Jaap, Ann. Myc. VI (1908) p. 219. — 7632 Pycnidiis sparsis, primo emergentibus postremo superficialibus, scutellatis, applanatis, margine laciniato, brunneis 0,3-0,6 mm. cr., disco decolorato; sporulis filiformibus, curvulis, guttulatis, distincte

septatis,  $30-60 \approx 1,5-2$ , apice attenuatis, hyalinis; sporophoris brevissimis, indistinctis.

Hab. in foliis emortuis Pini montanæ prope Tschechischen Hütte in Karawanken, Tirolia.

#### Fam. 5. Melanconiaceæ Corda em.

### Sect. 1. Hyalosporæ

HAINESIA Ell. et Sacc. — Syll. III p. 698, X p. 446, XI p. 562, XIV p. 1004, XVI p. 995, XVIII p. 447.

Hainesia Kolæ Speg., Myc. Argent. V, p. 400, in Anal. Mus. Nac. 7633
 Buenos Aires XX (1910). — Maculis orbicularibus, 5-15 mm.
 diam., subdeterminatis, sordide fuscescentibus; acervulis numerosissimis confertis circinantibus, sublenticularibus, 75-100 μ. diam.,
 erumpentibus, subtremelloideis fusco-albescentibus, conidiis subcylindraceis v. lenissime subclavatulis, utrinque obtuse rotundatis,
 16-20 × 4-5- sæpe ad medium leniter coarctatulis, rectis v. vix
 inæquilateralibus, nubilosis, hyalinis.

Hab. ad cotyledones vivos Sterculiæ acuminatæ (Kola) ex Dakkar Africa cultæ in La Plata Argentina America austr.

2. Hainesia oleicola Speg., Myc. Argent. V, p. 400, in Anal. Mus. 7684 Nac. Buenos Aires XX (1910). — Maculis obsoletis, suborbicularibus, 3-7 mm. diam., depresso-rugulosis subconcentrice zonatis vix pallescentibus; acervulis circinantibus confertis, erumpentibus, 100-130 μ. diam., sordide pallideque rufescentibus, subceraceis; conidiis e lanceolato subclavatulis, 20 × 5-6, continuis, rarius subdiblastis, hyalinis, nubilosis.

Hab. in epicarpio fructuum adhuc pendulorum Oleæ europeæ in hortis Buenos Aires.

3. Hainesia Feurichii Bubák, Ann. Mycol. IV (1906) p. 119. — Ma- 7635 culis foliicolis parvis, angulosis, nervis limitatis, demum plus minusve confluentibus, utrinque visibilibus, brunneis v. sordide brunneis, raro flavo-alutaceis, supra griseis, arescentibus; acervulis hypophyllis, nigris, depresse applanatis, gregariis et sæpe confluentibus, epidermide tectis, dein nudatis, circ. 350 μ. latis; conidiis variabilibus, ex ovoideo elongatis 3-4 × 1-1,5, rectis v. curvulis, utrinque rotundatis, hyalinis; conidiophoris filiformibus, apice angustatis, usque ad 20 × 1-1,5, hyalinis.

Hab. in foliis vivis Pruni Padi prope Göda Saxonia (Feurich). — Socium adest Cylindrosporium Padi.

4. Hainesia Palmarum v. Keissl., Ann. Mycol. VII (1909) p. 292. — 7636 Maculis nullis; acervulis subcuticularibus, mox erumpentibus, lineari-oblongis, (rarius punctiformibus) sordide aurantiacis, subtremelloideis, gregariis (interdum subconfluentibus) 0,4-0,6 × 0,1-0,2 mm.; conidiophoris dense cæspitosis, filiformibus, rectis, brevibus, hyalinis, c. 20 × 3; conidiis oblongis, apice rotundatis, hyalinis, c. 12-15 × 6.

Hab. in fructu Arecæ Rechingerianæ in insula Salomon Bougainville prope Kieta (Rechinger).

5. Hainesia Tellingsii Koord., Botan. Untersuch. Java (1907) p. 215, 7637 fig. 32. — Acervulis amphigenis, erumpentibus, præsertim hypophyllis, gregariis v. sparsis, 20-40 μ. diam., albescentibus, in maculis purpurascentibus irregularibusque insidentibus; conidiis ellipsoideis, utrinque rotundatis, continuis, hyalinis, 5-5,5 × 2, rectis; conodiphoris continuis, simplicibus v. ramosis.

Hab. in foliis vivis Musæ (Physocaulis) sp. cultæ in Purworedyo Java (Koorders).

6. Hainesia Maxillariæ Speg., Myc. Argent. V, p. 400, in Anal. Mus. 7638 Nac. Buenos Aires XX (1910). — Maculis diffusis inderterminatis sæpius apicalibus subcinerescentibus; acervulis sublenticularibus 150-200 μ. diam., densiuscule gregariis erumpentibus succineis; conidiis subellipsoideis inæquilateralibus v. leniter curvulis, utrinque obtuse rotundatis, 12-18 × 7-8, hyalinis, levibus, nubilosis.

Hab. ad folia languida Maxillariæ rufescentis in silvis prope Bompland Misiones Argentina Amer. austr. (P. JORGENSEN).

GLŒOSPORIUM Desm. et Mont. — Syll. III p. 699, X p. 446, XI p. 562, XIV p. 1004, XVI p. 996, XVIII p. 448.

Glæosporium Thalictri Davis, Trans. Wisconsin Ac. of Sc. XVI 7689 (1909) p. 760. — Maculis e circulari oblongis, brunneis, margine angusto obscuro præditis, 5-10 mm. diam.; acervulis hypophyllis, sparsis, obscure brunneis; conidiis ex ellipsoideo oblongis, hyalinis, 4-6 × 2-3.

Hab. in foliis Thalictri dasycarpi, Mellen Amer. bor.

Glæsporium Sisymbrii Moesz, Gomb. Budap. I (1909) pag. 23, 7640 tab. I, fig. 8 a-b. (Bot. Közlem.) — Maculis sparsis, oblongis, 50-430 ≈ 30-85, fusco-nigris; acervulis epidermide tectis, dein erumpentibus, strato proligero minute parenchymatico dilute fuligeneo,

cellulis superficialibus, hyalinis, 7-10 × 3, vertice apiculato conidigeris; conidiis elongato-ellipsoideis, 7-13 × 2-,3 eguttulatis, hyalinis.

Hab. in caulibus emortuis Sisymbrii strictissimi prope Budapest Hungariæ.

3. Glæosporium sordidum Spegazz., Fungi Paulist. Rev. Mus. La Plata 7641 t. XV, p. 41 (1908). — Maculis irregularibus repandulis 5-25 mm. diam., ad epiphyllum sæpius subdeterminatis, areola angustissima lateritia cinctis, ad hypophyllum evanescentibus; conidiis utrinque obtusissimis, 15-16 × 5-6, sæpe medio leniter coarctatulis, sæpius eguttulatis, hyalinis.

Hab. ad folia subcoriacea ignota (Menispermaceæ?) Ipiranga Cambucy, Brasilia (Usteri)

4. Glæsporium Evonymi Briosi et Cav. Funghi parass. essicc. n. 396, 7642 c. ic. (1889). — Maculis exaridis, cinerescentibus, lateque expansis, irregularibus, nigro-cinctis; acervulis pustuliformibus, conicis, subtusom stromate proligero donatis; conidis cylindraceis v. oblongis v. clavulatis, utrinque obtusis, hyalinis, 9-12 × 2-3.

Hab. in foliis vivis Evonymi ja ponicæ, Cagliari Sardinia.

Glæosporium Theæ-sinensis Miyake, Bot. Mag. Tokyo XXI (1907) 7643
 p. 44, cum icon. — Maculis latis, rufo-brunneis, demum cinerescentibus; conidiis ex ovoideo fusoideis, hyalinis, 4-6 × 2.

Hab. parasitice in foliis Theæ sinensis in Japonia.

6. Glæosporium fagaricola Speg., Myc Argent. V, p. 402, in Anal. 7644 Mus. Nac. Buenos Aires, XX (1910). — Maculis amphigenis, determinatis, cinerescentibus, sæpe marginalibus, majusculis, areola destitutis; acervulis epiphyllis, hinc inde gregariis, sublenticularibus, erumpentibus, 90-110 μ diam., pseudopycnidio rudimentario, eximie ostiolato-pertuso fuscidulo tectis; conidiis rectis, utrinque obtuse rotundatis, non v. vix coarctatulis, 16-18 × 5-6, sæpius nubilosis, v. bi-guttulatis, hyalinis, levibus.

Hab. ad foliia viva v. languida Fagaræ (Xanthoxyli) cujavensis, Puerto León, Misiones, Argent.

7. Glæosporium meliicola Speg., Myc. Argent. V, p. 403' in Anal. <sup>7645</sup> Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis primo orbicularibus dein confluendo repando-difformibus, 1-5 mm. diam., candicanticus, exareolatis; acervulis hypodermicis, epiphyllis, laxe gregariis, atris, lenticularibus, 75-120 μ. diam.; conidiis ellipsoideis utrinque obtusiuscule rotundatis, non v. leniter inæquilateralibus 12-14 × 6-7, sæpius grosse biguttulatis, primo hyalinis dein dilute chlorinulis.

Hab. ad folia viva Meliæ Azedarach in Orán Salta Argentina Amer. austr.

8. Glæosporium sarmenticola Speg., Myc. Argent. V, p. 404, in Anal. 7646 Mus. Nac. Buenos Aires XX (1910). — Maculis parum manifestis subcinerescentibus subclipticis, 10-15 mm. long; acervulis densiuscule gregariis epidermide vestitis, valde depressis, orbicularibus 250-400 μ. diam., irregulariter dehiscentibus, pseudoperithecio sordide fusco, contextu indistincto tectis; conidiis e cylindraceo subclipsoideis v. obsoletissime subclavatulis, utrinque obtuse rotundatis, 15-18 × 7-8, rectis v. leniter inæquilateralibus, nubilosis, hyalinis.

Hab. ad sarmenta languida v. emortua Vitis ripariæ in hortis La Plata Argentina Amer. austr.

9. Glæosporium Garciniæ Koord., Botan. Untersuch. Java (1907) p. 217, 7647 fig. 33 I. — Maculis maximis irregularibus, fuscescentibus; acervulis laxe gregariis, amphigenis, præsertim epiphyllis, nigris, c. 200 μ. diam.; conidiis continuis, hyalinis, cylindraceis, rectis v. curvulis, utrinque rotundatis v. obtusis, 10-18 × 4-6; conidiophoris cylindraceis, hyalinis, 8-10 × 4.

Hab. in foliis vivis Garciniæ du leis cultæ in Purworedjo prov. Kedu, Java (Koorders).

10. Glæosporium leptostromoides Bubák, Fünft. Beit. Pilz. Tir. in <sup>7648</sup> Ber. naturw.-med. Ver. Innsbruck XXX Jahrg. (1905-1906) Extr. p. 16. — Acervulis dense gregariis caulem late obtegentibus, depressis, subrotundo-ellipticis, atro-brunneis, leniter nitidulis, sæpe confluentibus, subepidermicis, dein nudis, hypostromate castaneo-brunneo, parenchymatico, 10-20 μ. cr.; conidiophoris breviter cylindraceis dilute olivaceis, apicem versus tenuatis et pallidioribus; conidiis inæqualiter ellipsoideis, oblongis v. cylindraceis, 12-18 × 4,5-7, utrinque rotundatis, rarius uno polo acutatis, subinde medio leniter coarctatis, dilute fumosis.

Hab. in caulibus Abutilonis sp. (adhuc viventibus?), in calidariis, Meran in Tirolia cisalpina (CERNY).

11. Glæosporium Ribis (Lib.) Mont. et Desm. — Syll. II p. 706 — 7649 var. Parillæ Jancz. et Namylowski in Anz. Akad. Wis. Krakau (1910) p. 791 et Bot. Centralbl (1911) I p. 498. — A typo dignoscitur acervulis sæpe biformibus; conidiis in aliis pustulis majoribus, 20 × 4 inque aliis minoribus, vix 4×1; interdum in pustula singula utriusque magnitudinis mixtis.

Hab. in foliis specierum nonnullarum subgeneris Parillæ

gen. Ribis, e. g. R. integrifolii, R. polyanthi, R. magellanici, R. chrysanthi cultarum in Rossia (?). — Sec. Laubert in Centralbl. f. Bakt. II Abt. (1906) p. 82, in forma typica conidia sunt  $18-30 \times 7,3-9$ , non tantum  $10 \times 5-6$  uti certe ex errore habetur in Fung. Ital. fig. 1036.

12. Glæosporium Eriobotryæ Speg., Myc. Argent. V, p. 402, in <sup>7650</sup> Anal. Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis sparsis orbicularibus v. confluendo difformibus, 2-10 mm. diam., cinerescentibus, eximie limitatis exareolatis; acervulis irregulariter sparsis erumpentibus lenticularibus, 180-200 μ. diam., fusco-atris; conidiis ellipsoideis grosse 2-guttulatis, 8-10 × 2,5-3.

Hab. ad folia viva Eriobotryæ japonicæ, Lezama pr. Buenos Aires Argentina.

13. Glæosporium album Osterw., Centralbl. f. Bakter. etc. II Abt. XVIII <sup>7651</sup> (1907) p. 826, fig. 2-5. — Acervulis albidis, concentrice dispositis, 90-830 μ. diam.; conidiis hyalinis cylindraceis, curvulis, apice utrinque rotundatis circ. 24 × 3; conidiophoris magnitudine variabilibus sed plerumque brevioribus quandoque e basi furcatis.

Hab. in fructibus Piri communis et Piri Mali, Wädenswil Helvetia.

14. Glæosporium Cratægi Hollós, Ann. Mus. Nat. Hung. IV (1906) 7652 p. 368, tab. IX, fig. 34. — Acervulis subepidermide dense gregariis, epidermide dehiscente superficialibus, lenticularibus, nigris, 210-310 μ. diam.; conidiis ellipsoideis, continuis, granulosis, guttulatiisque, hyalinis, 22-28 × 6-10.

Hab. in fructibus Cratægi monogynæ prope Kecskemét Hungariæ.

15. Glæosporium armeniacum Speg., Myc. Argent. V, p. 404, in Anal. 7653 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis sparsis candidis orbicularibus, 2-7 mm. diam., areola subpurpurascente sæpe cinctis, per ætatem deciduis, ac folium perforatum relinquentibus, acervulis laxe gregariis subcircinantibus, 100-150 μ. diam., nigris pseudoperithecio spurio subostiolato tectis; conidiophoris conoideo-elongatis, 10-15 × 2-3, hyalinis monosporis; conidiis ellipsoideis v. oblanceolatis, 25 × 7-8, hyalinis, levibus, continuis, sæpe guttulatis.

 ${\it Hab}.$  ad folia viva Pruni Armeniacæ in hortis prope Tucumán Argentina Amer. austr.

16. Glæosporium Cerasi Lindau in Kabát et Bubák, Fungi imper- 7654 fecti exsiccati n. 573 (1909). — Maculis subrotundis, circ. 2-3 mm.

in diam., subroseis, in sicco difficile visibilibus; acervulis in maculis cæspitosis, densissimis, confluentibus, ceraceis, nudis; conidiophoris densissimis, simplicibus, eseptatis, teretiusculis, apice subacutis,  $34-40 \approx 3.8$ ; conidiis acrogenis, oblongis, utrinque subacutis, nel subfusoideis, rarius inæqualibus, hyalinis,  $11.5-15.5 \approx 3.5-4$ .

Hab. in fructibus acidis Pruni Cerasi pr. Stargard Pomerania (C. Warnstorf).

17. Glæosporium Pruni Hollós, Ann. Mus. Nat. Hung. VI (1908) 7655 p. 535. — Acervulis subcutaneis, dense gregariis, lenticularibus, atro-violaceis, 140-180 μ. diam.; conidiis ellipsoideis, utrinque acutis v. rotundatis, continuis, granulosis, hyalinis, 10-12 × 4-5; conidiophoris filiformibus, hyalinis, conidio duplo longioribus.

Hab. in fructibus Pruni spinosæ prope Felső-Nyáregyháza Hungariæ. — A Glæosp. Beguinoti Sacc. conidiis minoribus præcipue diversum.

18. Glæosporium Citri Massee, Kew Bull. (1910) p. 4. — Maculis 7656 amphigenis, numerosissimis, minutis, primo fuscis, dein arescendo albidis, postremo frustulatim deciduis ac folium perforatum relinquentibus; acervulis subcutaneis, lenticularibus vix perspicuis, 40-50 μ. diam.; conidiis cylindraceis utrinque rotundato-clavatis, hyalinis, 14-17 × 5-6, in cirros salmoneos eructatis.

Hab. in foliis emortuis Citri Aurantii, Trinidad Indiæ occid. (I. H. HART).

19. Glæosporium? Holocalicis Speg., Myc. Argent. V p. 403, in Anal. 7657 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis albescentibus linea angusta purpurascenti limitatis; acervulis, sparsis v. laxe gregariis, erumpentibus, fuscidulis, lenticularibus 100-200 μ. diam.; conidiis cylindraceis rectis v. curvulis 15-16 × 6, grosse biguttulatis, hyalinis, conidiophoris æquilongis paulo gracilioribus fuscidulis solitarie acrogenis.

Hab. ad folia languida Holocalycis Balansæ in silvis Santa Fé Argentina Amer. austr.

20. Glæosporium Orobi Karst., Acta Soc. pro Fauna et Fl. fenn. 7658 XXVII, 4 (1905) p. 15. — Maculis amphigenis, irregularibus, fuscescentibus; acervulis irregularibus, plano-disciformibus, saturate fuscis, minutis.

Hab. in foliis vivis Orobi verni in regione Sortavalensi Fenniæ (Lönnвонм).

21. Gleosporium Pithecolobii Koord., Botan. Untersuch. Java (1907) 7659

pag. 216. — Maculis maximis, irregularibus, griseo-fuscescentibus; acervulis epiphyllis 70-130  $\mu$ . diam.; conidiis continuis, hyalinis, rectis v. curvulis, cylindraceis, utrinque obtusis v. rotundatis,  $16-20 \approx 5-6$ .

Hab. in foliis vivis Pithecolobii lobati culti prope Purworedjo prov. Kedu Java (Koorders).

22. Glæosporium corallinum (Peyl) Sacc. et Trav. — Myxosporium 7660 corallinum Peyl, Beschr. einig. neuer Pilze in Lotos VIII (1858) p. 30 t. I, f. 15. — Acervulis vivide corallinis, nunc discretis, nunc late confluentibus, gelatinosis, (demum superficialibus?); conidiis copiosissimis, globosis, majusculis, diaphanis, solutis hyalinis.

Hab. in interiore leguminum frigore necatorum nondum plene maturorum Phaseoli lunati sero autumno in Bohemia.

23. Glæosporium tricolor Lind, Ann. Mycol. V (1907) p. 277. — 7661 Maculis sparsis, rotundatis, 4 mm. diam., centro nigro-brunneis, pallide griseo marginatis extusque in epiphyllo rubro-brunneo zonatis; acervulis sparsis, subepidermicis, minutis, in hypophyllo erumpentibus; conidiis elongatis, unilocularibus, hyalinis, utrinque acutatis, subcurvulis,  $30-42 \approx 5-6$ .

Hab. in foliis vivis Viciæ Craccæ prope Borgholm in Ins. Oeland Suecia.

24. Glæosporium Bignoniacearum Spegazz., Fungi Paulist., Rev. Mus. 7662 La Plata t. XV, p. 40. (1908) — Acervulis lenticularibus 75-100 μ. diam., epiphyllis, sparsis, maculis parvis 1-5 mm. diam., albescenti-cinerescentibus insidentibus; conidiis rectis v. inæquilateralibus e sæpe medio coarctatulis, utrinque rotundatis, 12-14 × 5-6, biguttulatis, hyalinis, in conidiophoris subconoideis 10 × 4-5 e strato proligero fuscidulo exsurgentibus solitarie acrogenis.

Hab. ad folia viva Bignoniace æ cujusdam, Ipiranga Cambucy Brasilia (USTERI).

25. Glæosporium microstromoides Moesz, Gomb. Budap. I (1909) 7668 p. 23, t. II, f. 7 a-b. (Bot. Közlem). — Maculis cinereis; acervulis sparsis, epidermide tectis, dein erumpentibus; conidiophoris clavatis, cylindraceis v. ovatis, hyalinis, 10-30 × 5-9, ex hyphis coniothecioideis flavo-fuscis oriundis; conidiis 2-8, plerumque 6-8 in apice conidiophororum, frequenter anulariter ordinatis, obovatis, ad basim sæpe attenuatis, hyalinis, 5,8-6,6 × 3-5.

Hab. in capsulis maturis Catalpæ bignonioidis, prope Budapest Hungariæ.

25. Glæosporium Solani Osterw., Centralbl. f. Bakter. II Abt. XVIII 7664

(1907) p. 826. — Acervulis sæpe concentrice dispositis, nigricantibus; conidiis hyalinis, cylindraceis v. ovoideo-clavatis, v. etiam incurvatis  $13,5-17 \approx 3,6-4,8$ ; conidiophoris plus vel minus cylindraceis  $19-31 \approx 2,4-3,05$  e pseudoparenchymate nigricante ortis.

Hab. in fructibus Solani Capsicastri, Wädenswil Helvetia.

26. Glæosporium Kawakamii Miyabe, Bot. Mag. Tokyo XIX (1905) 7665 p. 213. — Maculis pallide brunneis, obscurius marginatis, in foliis, petiolis ramulisque sitis; conidiis lineari-oblongis v. clavulatis, subirregularibus, rectis curvulisve, hyalinis, 10-13 × 2,5-3, in massulas subrotundatas, salmonicolores exsilientibus.

Hab. in plantulis Paulowniæ tomentosæ, quas maxime et late vexat et serius deformat in Japonia. — In culturis gignuntur chlamydosporæ ovato-ellipsoideæ, continuæ, leves, 7-16 ≠ 5-7, obscuræ. Plantulæ folia sæpe fungillo perforatur.

27. Glæosporium Pouteriæ Speg. Myc. Argent. V, p. 404, in Anal. <sup>7666</sup> Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis elliptico-difformibus, 5-10 mm. long. 3-7 mm. latis, determinatis sordide, albescentibus, subareolatis, linea angusta ferruginea limitatis; acervulis epiphyllis hypodermicis, erumpentibus, conferticolis, lenticularibus 100-150 μ. diam., fuscis; conidiophoris subconoideis v. sublageniformibus 10-20 × 7-8, constipatis, obtusis, monosporis, hyalinis; conidiis obovatis, nubiloso-guttulatis, 14-18 × 5-7.

Hab. ad folia languida Pouteriæ Sellowianæ in Horto Botanico Municipali Bonaërensi Argentina America austr. (E. AUTRAN).

28. Glæosporium lagenarium (Pass.) Sacc. et Roum. — Syll. III 7667 p. 719 — var. Citrulli Potebnia, Myc. St., Ann. Myc. v. V (1907) p. 20, tab. 3, fig. 40 et Trav. Soc. Nat. Univ. Kharkow XXXXIII (1907). — Maculis impressis 0,5-5 cm. latis; cæspitulis initio roseo-rubris dein brunneis; conidiis hyalinis, congregatis, pallide roseo-rubris, 14 × 5; conidiophoris fusoideis, 20-30 × 5.

Hab. in epicarpio Citrulli vulgaris quem valde vexat in Rossia austr. ubi valde diffusum.

29. Glæosporium coffeicola Speg., Myc. Arg. V, p. 402, in Anal. 7668 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis irregularibus repandis, 5-10 mm. diam., determinatis, centro subcinerescentibus ambitu subrufescentibus, exareolatis; acervulis epiphyllis subcircinantibus sublenticularibus, 100-150 μ. diam., erumpentibus, atris; conidiis ellipsoideis utrinque rotundatis 12-14 × 7-8,

intus granulosis v. grosse 1-guttulatis, primum mucoso,-vestitis demum nudis, hyalinis, levibus.

Hab. ad folia languida Coffeæ arabicæ prope Sao Paulo Brasilia Amer. aust. (C. Girola). — A G. coffeano Del. nec non a Colletotricho coffeano Del. longissime recedens nec quidem comparandum.

30. Glæosporium bokense P. Henn., in Fl. du Bas- et Moy. Congo, 7669 in Ann. Mus. du Congo, v. II, fasc. III (1908) p. 228. — Maculis effusis, cinereo-fuscis, zona rufo-brunnea circumdatis; acervulis epiphyllis gregariis, immersis, subcupulatis, rotundatis, atrocellulosis, c. 80-100 μ. diam.; conidiis ellipsoideis, nubilosis, 2-guttulatis, 7-10 × 4-5, hyalinis; conidiophoris brevibus.

Hab. in foliis Coffee sp., Boko Congo (VANDERYST).

31. Glæosporium Spegazzinii Sacc. et Trott. — Glæosporium apiospo 7670 rum Spegazz., Fungi Paulist. in Rev. Mus. La Plata t. XV, p. 40, (1908)non Sacc. — Maculis repando-orbicularibus 1-4 mm. diam. sordide testaceis, ad epiphyllum areola purpurascente cinctis, ad hypophyllum areola destitutis; acervulis sparsis erumpentibus 60-80 p. diam. epidermide infuscata diu tectis; conidiis utrinque obtusis 14-16 × 7 continuis v. obsolete diblastis, hyalinis, in conidiophoris conicis 10-15 × 5, concoloribus solitarie acrogenis.

Hab. ad folia languida Coffeæ cujusdam in Horto botanico Sao Paulo Brasilia (USTERI).

32. Glæosporium minus Shear, Bull. Torr. Bot. Club, XXXIV (1907) 7671 p. 315, Cranberry Dis. p. 40, tab. III, fig. 10-11. — Acervulis amphigenis, parvis, sparsis, in maculis distinctis v. non, insidentibus; conidiis massas pallide rubras glutinosas efformantibus, oblongo-ellipsoideis v. subcylindraceis, quandoque inæquilateralibus v. subclavatis, plerumque guttulatis, 6-9 × 3-4; conidiophoris simplicibus, supra leniter conoideis, sesqui- v. duplo longioribus; setulis non observatis.

Hab. in foliis fructibusque Vaccinii macrocarpi, in America boreali.

33. Glæosporium apiosporium Saccardo, Microm. Amer. novi, Journ. 7672 of Myc. v. XII (1906) p. 51. — Maculis angulosis v. subcircularihus, amphigenis, brunneo-alutaceis, 6-8 mm. diam., sæpe confluentibus, nervis obscuratis limitatis; acervulis plerumque hypophyllis, innatis, creberrimis, punctiformibus, brunneis; conidiis obpiriformibus, apice rotundatis, 8 × 2,5, crasse 1-2-guttatis, ses-

silibus, in cirros filiformes, tortuosos, copiosissimos, alutaceos, demum totas maculas obtegentes protrusis.

Hab. in foliis languidis Arctostaphyli tomentosævulgo Madrono de arbol, in territorio Mexici (Bonansea). — Gl. alpino affine, Conidiophora nulla v. brevissima.

34. Glæosporium anceps Sacc., Ann. Mycol. VI (1908) p. 556. — Macu-7678 lis minutis amphigenis, anguloso-orbicularibus, utrinque, præsertim inferne, elevatis, atropurpureis, 1 mm. circ. diam.; acervulis exiguis, punctiformibus, vix erumpentibus, fuscis; conidiis globulosis 4 μ. diam., initio, ut videtur, catenulatis, hyalinis; conidiophoris brevissimis ellipsoideis, sporomorphis, hyalinis.

Hab. in foliis vivis Arbuti Unedonis, Villa Favorita, Palermo, Sicilia (J. H. Matter). — Fungillus, anceps, ulterius inquirendus.

35. Glæosporium Oleandri Sacc., Ann. Mycol. VI (1908) p. 556. — 7674 Maculis nullis v. obsoletis; acervulis epiphyllis dense gregariis, epidermide stellatim fissa tectis, dein erumpentibus, 250 μ. diam., fuscis; conidiis ellipsoideo-oblongis, utrinque rotundatis, intus granulosis, 14-15 × 5, subinde plasmate bipartito, hyalinis; conidiophoris fasciculatis, bacillaribus, subhyalinis, 14-15 × 2, e strato proligero chlorino nascentibus.

Hab. in foliis languidis Nerii Oleandri, Giardino Inglese Palermo, Sicilia (J. H. MATTEI). — Accedit ad Gl. affine sed satis distinguitur.

36. Glæosporium Holstii P. Henn., Engl. Jahrb. XXXVIII (1905) 7675 p. 17. — Maculis rotundatis, pallidis, exaridis, zona rufofusca cingulatis; acervulis epiphyllis sparse gregariis, lenticularibus, atris, c. 100-120 μ. diam.; conidiis oblonge ellipsoideis, rectis v. subcurvulis, obtusis, nebulosis, hyalinis, 10-14 × 5-6.

Hab. in foliis Tabernæmontanæ Holstii, Wilhelmstal Ost-Usambara Africæ (ZIMMERMANN). — A Gl. Tabernæmontanæ diversum.

37. Glæosporium Roaldii Lind, Vidensk. Selskab. Skrif. Math. Naturw. 7676 Kl. Christiania (1909) n. 9 X Extr. p. 20, tab. I, fig. 14. — Acervulis numerosis, sparsis, in macula vasta arida foliorum v. in foliis emortuis, erumpentibus, nigrescentibus, hypophyllis, c. 80 μ. diam.; conidiis elongato-ellipsoideis, utrinque attenuatis seu clavulatis, curvatis, hyalinis, intus granulosis, 20-26 × 3,5-5.

Hab. in foliis Erigerontis grandiflori et Polemonii borealis, Herschell Island, Amer. bor. arctica.

38. Gleosporium Bischofiæ Koord., Botan. Untersuch. (1907) p. 215. 7677 — Maculis atris, circularibus irregularibusve, zona purpurea cinctis, c. 10 mm. diam; acervulis 80-160 μ. diam., erumpentibus, amphigenis; conidiis continuis, hyalinis, longe cylindraceis v. fusiformibus, plerumque 20 × 5, apice rotundatis, basi obtusis, rectis v. curvulis; conidiophoris continuis, indivisis, hyalinis, longe cylindraceis, 12-15 × 3-4.

Hab. in foliis vivis Bischofiæ javanicæ prope Sapuram prov. Kedu Java (Koorders).

39. Glæosporium Heveæ Petch, Ann. Roy. Bot. Gard. Peradenyia 7678 III Pt. I, (1906) p. 8. — Acervulis pallido-brunneis, sparsis, erumpentibus, irregularibus, applanatis, epidermide rupta cinctis, 0,1-0,25 mm. diam., amphigenis, conidiis oblongis, utrinque rotundatis, hyalinis, continuis, 12-17 × 3,5-5, guttam pallido-brunneam ejectis; conidiophoris 20-34 × 2.

Hab. in foliis plantularum mox secedentibus Heveæ brasiliensis, in ins. Ceylon.

40. Glæosporium albo-rubrum Petch, Ann. Roy. Bot. Gard. Peradenyia III (1906) Pt. I, p. 8. — Ztschr. f. Pflanzenkr. XVIII (1908) p. 87. — Acervulis 150-200 μ. diam., nigris, epidermidem irregulariter lacerantibus; conidiis hyalinis, oblongis, utrinque rotundatis, rectis v. leniter curvatis, 15-20 × 3-4, in cirrum crassum albidum v. puniceum ejectis.

Hab. in ramis vivis Heveæ brasiliensis, Ceylon.

41. Gleosporium Ricini Maubl., Bull. Soc. Myc. Fr. XXII (1906) 7680 p. 67. — Maculis nullis; acervulis epiphyllis, sparsis, pallide roseis, erumpentibus, minutissimis, 90-140 μ. diam.; pseudopycnidio fere superficiali, contextu celluloso, nigricante; conidiophoris simplicibus, continuis, brevibus, 15 μ. long.; conidiis acrogenis, oblongis, obtusis, leniter granulosis, continuis, hyalinis, 12-14 × 3-4.

Hab. in foliis languidis Ricini communis, Sao Paulo Brasiliæ (PUTTEMANS)

42. Glæosporium Muchlembeckiæ Briosi et Cav., Funghi parass. essicc. 7681 n. 397 (1905) c. ic. — Acervulis gregariis v. sparsis in macula albicante lata insidentibus, primo epidermide tectis dein erumpentibus, globosis v. globoso-conicis; stromate nigro, pseudoparenchymatico ad basim præditis; conidiis e strato proligero oriundis, hyalinis, continuis, oblongis, rectis v. parum incurvatis, 15–16,5 × 6,5.

Hab. in cladodiis languentibus Muehlembeckiæ platycladæ, in horto botanico Pavia, Ital. bor.

43. Glæosporium Vogelianum Sacc., Ann. Mycol. VI (1908) p. 562, 7682 tab. 24, fig. 6. — Acervulis epiphylli sgregariis interdum in maculis brunneis (propriis?) insertis, subcutaneo-erumpentibus, disciformibus, subochraceis, 200-300 μ. diam.; conidiis allantoideis eximie arcuatis, utrinque obtusulis, 12-14 × 2,5-3, hyalinis, guttulatis.

Hab. in foliis languidis Coryli Colurnæ, Tamsel Germaniæ (P. Vogel). — Conidiis valde curvatis imprimis dignoscitur.

44. Glæosporium inconspicuum Cavara, Fungi Longob. exsicc. fasc. V 7688 (1894) n. 249 cum icone et in Briosi e Cavara, Funghi parass. n. 350 (1900). — Maculis foliicolis magnis circularibus, flavo-ochraceis margine indeterminatis; acervulis epiphyllis, sublente quoque ægre visibilibus, hyalino-ceraceis; conidiophoris cylindraceis constipatis monosporis, 8-10 μ. long.; conidiis subellipsoideis, ovoideis v. cylindraceis, hyalinis 1-2 μ. er.

Hab. in foliis languidis Ulmi americanæ, Pavia Italia bor. — Var. campestre Dorogin in Zeitschr. f. Pflanzenkr. XX (1910) p. 262, fig. 1-2. — Maculis initio annularibus ochraceis, deinde suborbicularibus confluentibus brunneis; acervulis, sub lente quoque non perspiciendis, conico-depressis, hyalinis; conidiophoris filiformibus, dense stipitatis, 14-18(-28) × 1-2; conidiis minutis cylindraceis, bacteriformibus, 3-6(-9) × 1-2, hyalinis. — In foliis vivis Ulmi campestris, Lesnoj prope Petropolim Rossiæ. — Ob conidia et conidiophora multo majora probabiliter a typo specifice distinguendum.

45. Glæosporium leptothyrioides Kab. et. Bub., Myc. Beitr., Hedwigia 7684 Bd. XLVI (1907) p. 296. — Maculis amphigenis, usque ad 3 cm. long. et 1 cm. latis, irregularibus, subindeterminatis, e pallide brunneis obscure brunneis, non v. anguste brunneo-rubro v. flavo-brunneo marginatis; acervulis amphigenis v. hypophyllis plus minusve confertis, sæpe confluentibus, rotundatis v. elongatis, depressis, epidermide tectis, dein late apertis, ex obscure brunneis nigrescentibus, opacis; conidiis subfusoideis v. cylindraceis utrinque subangustatis, obtusulis, rectis v. raro curvulis, 5-8 × 2-3, hyalinis; conidiophoris ampulliformibus conidia subæquantibus v. longioribus, basi 6 μ. cr. pallide olivaceo-brunneis.

Hab. in foliis vivis Betulæ albæ prope Turnau Bohemia

(KABAT). — A Gl. Betulce (Lib.) et Gl. betulino Westend. omnino diversum.

46. Gleosporium salicinum Karst., Acta Soc. pro Faun. et Fl. fenn. 7685 XXVII (1905) 4, p. 11. — Acervulis epiphyllis, sparsis, rarius confertis, sub epidermide nidulantibus pulvinatis, rotundatis v. irregularibus, nitidis, rufis, minutis; conidiis non visis.

Hab. in foliis languidis Salicis viminalis in horto Mustialensi Fennia. — Specie, conidiis ignotis, omnino dubia.

47. Glæosporium amentorum (Delacr.) J. Lind, Ann. Mycol. III (1905) 7686 p. 431, Fusarium amentorum Delacr. — Syll. XI p. 650. — Conidiis ovoideo-ellipticis 14-20 × 5-8.

Hab. in amentis Salicis auritæ, S. cinereæ, S. viminalis, S. pedicellatæ etc. in Norvegia, Suecia, Dania, Germania, Austria, Gallia, Algeria. — Sequentes species amenticolæ ita, sec. Lind, distinguendæ.

48. Gleosporium deformans (Schröt.) J. Lind, Ann. Mycol. III (1905) 7687 p. 432, Fusarium deformans Schröt. — Syll. IV p. 717. — Conidiis inæquilateralibus, plano-convexis, 20-25 × 5-10.

Hab. in amentis Salicis capreæ et S. caprea-cinereæ in Fennia Suecia, Dania, Silesia, Gallia.

49. Glæosporium ælandicum J. Lind, Ann. Mycol. III (1905) p. 432. 7688 — Conidiis ut in G. deformante sed majoribus,  $28-36 \approx 5-10$ .

Hab. in amentis Salicis undulatæ in Œlandia.

50. Glæosporium Lapponum J. Lind, Ann. Mycol. III (1905) p. 432. <sup>7689</sup>
— Conidis fortiter falcato-curvis, 21-33 × 5-10.

Hab. in amentis Salicis Lapponum, S. nigricantis, S. phylicifoliæ, et S. repentis in Norvegia et Suecia.

51. Glæosporium intumescens Bub. et Kab. Hedw. L (1909) p. 45, <sup>7690</sup> cum icone. — Acervulis hypophyllis, nervicolis, subepidermicis, 100-130 μ. lat., dense gregariis v. confluentibus, pallidis dein brunneis; conidiis in massulas breve elevatas sordide albas eructatis, fusoideis vel oblongis, uno apice acutatis vel cuneatis 13-21 ε 5,5-7,5, rectis curvulisve; conidiophoris basi cæspitose junctis, rectis curvulisve, hyalinis, variæ longitudinis, conidio brevioribus v. longioribus.

Hab. in foliis vivis demum decoloratis Quercus Cerris pr. Grosse Skal Bohemiæ. Cl. auctores intumescentias lineares nervisequias, quibus fungillus innascitur, tribuunt Glæosporio sed revera sunt gallæ a Cecidomyæ specie generatæ.

52. Gleosporium cecidophilum Trotter, Micromic. delle galle, Ann. 7691

Myc. v. III (1905) p. 524, fig. 3, 3 a. — Acervulis punctiformibus in maculas pallidas insidentibus; conidiis irregulariter ellipsoideis v. ovatis, pallide olivaceis, 1-2 v. indistincte guttulatis, 12-16  $\times$  6-8; conidiophoris brevibus 10  $\mu$ . c. longis.

Hab. in superficie gallarum Neuroteri vesicatoris, in pagina inferiori foliorum Quercus pedunculatæ, Bosco Fontana prope Mantova, Neuroteri baccarum, in foliis Quercus sessilifloræ amphigenis, Fano Marche, Ital. sup.

53. Glæosporium Usteri Spegazz., Fungi Paulist. Rev. Mus. La Plata 7692 t, XV, p. 42 (1908). – Maculis primo suborbicularibus dein confluendo difformibus pallidescentibus obsoletis; acervulis innato-erumpentibus lenticularibus 100-200 μ. diam.; conidiis rectis v. leniter inæquilateralibus utrinque obtusis, 14-20 × 5-6 non v. grosse 1-guttulatis hyalinis in conidiophoris brevissimis papilliformibus e strato proligero fuscidulo oriundis acrogenis.

Hab. ad folia subcarnosa languida plantæ ignotæ cujusdam in Horto botanico Sao Paulo Brasilia (USTERI).

54. Gleosporium paulistanum Spegazz., Fungi Paulist. Rev. Mus. 7693 La Plata t. XV, p. 40 (1908). — Maculis sparsis 5-10 mm. diam. repando-suborbicularibus, areola angusta lateritia callosula cinctis, centro sordide testaceis, ambitu pallescentibus per ætatem secedentibus ac folium perforatum relinquentibus; acervulis lenticularibus 75-100 μ. diam., dense gregariis epiphyllis, sæpe subcircinantibus; conidiis rectis v. inæquilateralibus utrinque arctiuscule rotundatis, 4-6 × 1.5-2, eguttulatis.

Hab ad folia plantæ cujusdam ignotæ in Horto botanico Sao Paulo Brasilia (USTERI).

55. Glæosporium phyllachoricola Spegazz., Fungi Paulist. Rev. Mus. 7694 La Plata t XV, p. 41 (1908). — Acervulis lenticularibus 50-80 μ. diam., epidermide tectis e dorso stromatum Phyllachoræ cujusdam serius erumpentibus; conidiis utrinque obtusis 12-14 × 7-8 hyalinis, in conidiophoris gracilioribus 8-10 × 2-2,5 e strato proligero fuscidulo oriundis acrogene insidentibus.

Hab. ad folia coriacea languida arbusculæ cujusdam, Ipiranga Brasilia (Usteri). — An Phyllachoræ statum conidicum sistens? An in Phyllachora parasitans?

56. Gleosporium Musarum Cooke et Massee — Syll. X p. 461 — 7695 var. importatum Laubert in Gartenflora LIX (1910) p. 412, tab. fig. 1 (habitus) et p. 414, f. 1-2. — Conidiis, quam in typo, majoribus, nempe 9-24 × 5-7 (nec 10-12 × 4).

Hab. infructibus Musæ sepientum cultæ, Berolini. — Fructus superficie late nigro-maculantur et acervuli sat crebri gignuntur; conidia dein in verruculas incarnatas exsiliunt. Fructus Musæ maxime vitiantur.

57. Gleosporium Agaves Syd., Ann. Mycol. V (1907) p. 362. — 7696 Acervulis amphigenis, subepidermicis, planis, sparsis vel aggregatis, sæpe irregulariter confluentibus, atris, variæ magnitudinis; conidiis cylindraceis, utrinque rotundatis, rectis vel rarius leniter curvulis, hyalinis, continuis, intus granulosis, 20-30 × 7-9 μ.; conidiophoris brevibus.

Hab. in foliis Agaves spec. Prov. Sao Paulo, Campinas, Brasilia.

58. Gleosporium colubrinum Saccardo, Fungi aliquot africani, Bol. 7697 Soc. Broteriana, v. XXI (1904-905) p. 8. — Maculis nigricantibus subcircularibus angulosisque, vix 1 mm. diam., sæpe confluentibus matricem quasi colubrinam reddentibus; acervulis innatis, pulvinatis, 0,5 mm. diam., operculo epidermico circumscisso, subcirculari, demum secedente velatis, fuscis; strato conidico crasso duriusculo ex conidiophoris bacillaribus, septulatis dense stipatis. 55-70 × 5,5-7, fuligineis, sursum pallidioribus apiceque obsolete denticulatis formato; conidiis oblongo-cylindraceis, rectis curvulisve, utrinque rotundatis, 25-28 × 8-8,5, ex hyalino dilute olivascentibus, farctis.

Hab. in foliis emortuis Sansevieræ cylindraceæ ex Angola Africa occid. (A. Moller). - Maculis colubrinis, operculis epidermicis vere peculiaribus, conidiis majusculis species mox distinguenda.

59. Glæosporium triviale Spegazz., Fungi Paulist. Rev. Mus. La 7698 Plata t. XV, p. 41 (1908). — Maculis subellipticis 5-15 mm. longis diffusis indeterminatis centro subarescentibus, ambitu pallescentibus; acervulis subcircinantibus lenticularibus 75-100 μ. diam. fuscidulis prominulo-erumpentibus; conidiis utrinque acutiuscule rotundatis 14-16 × 5-5,5 rectis v. leniter inæquilateralibus, non v. . grosse 2-3-guttulatis, hyalinis.

Hab. ad folia languida Amaryllidaceæ cujusdam, Quedasperto de Caminas Brasilia (USTERI)

60. Gleosporium polymorphum Trinchieri, Rend. R. Acc. Sc. Napoli 7699 (1909) fasc. 8-12, Extr. p. 6. — Maculis permagnis, totum fere folium occupantibus, utrinque visibilibus, ferrugineis vel cinerescentibus, hic et illic albicantibus, castaneo-marginatis, 19-44 cm.

longis, 3-6 cm. latis; acervulis epiphyllis, rarius amphigenis, densissime aggregatis, epidermide velatis, dein erumpentibus, convexulis, subrotundis, nigris, 122-208  $\mu$ . diam., 98-147  $\mu$ . altis; conidiophoris nunquam visis; conidiis forma variis, cylindricis, clavatis, ovatis, ossiformibus, utrinque rotundatis vel ellipsoideis, uno apice acutulis, rectis curvulisve, 1-2-3 vel pluriguttulatis vel dense granulosis, hyalinis,  $12-22 \approx 4,5-7$ .

Hab in foliis adhuc vivis Dracænæ fragrantis Ker-Gawl., quandoque socio Colletotricho Dracænæ in Horto regio botanico neapolitano Ital. austr. (Trinchieri).

61. Glœosporium Crini Sacc., Ann. Mycol. VI (1908) p. 556. — Ma-7700 culis minutis versiformibus, supra elevatis, alutaceis; acervulis pulvinatis, erumpentibus, flavidis, 150 μ. diam.; conidiis ellipsoideis utrinque obtusatis, 11-11,5 ≈ 5-5,5, intus granuloso-farctis, hyalinis; conidiophoris fasciculatis, obelavatis, 20 • 4, e hyalino luteolis.

Hab. in foliis languidis Crini sp. in Horto botanico panormitano, Sicilia, socia Phyllosticta Crini (J. H. MATTEI).

62. Glæosporium Bomplandii Speg., Myc. Argent. V, p. 401, in Anal. 7701 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis orbicularibus, 1-2 mm. diam., determinatis, centro albescentibus ambitu fusco-ferrugineis; acervulis sæpius epiphyllis solitariis vel paucis gregariis, erumpentibus, 120-150 μ. diam., fuscidulis; conidiis subcylindraceis utrinque obtuse rotundatis, 12-14 × 5-6, sæpius ad medium subcoarctatulis, continuis, hyalinis.

Hab. ad folia viva Dioscoreæ? in silvis prope Bompland Misiones Argentina Amer. austr. (P. Jorgensen).

63. Glæosporium anthuriophilum Trinchieri, Rend. R. Ac. Sc. Fis. 7702 Mat. Napoli, fasc. 3-4, marzo-aprile (1909) p. 93. — Maculis amphigenis, rotundis, nunquam confluentibus, exaridis, cinerescentibus vel pallide brunneis, distincte lateque fusco-zonatis et margine definito, prominulo, castaneo circumscriptis, 1-2 cm. diam.; acervulis amphigenis, evidentibus, aggregatis, sublenticularibus, epidermide albicante tectis, nigris, 245-294 μ. diam., 122-137 μ. altis; conidiophoris nullis; conidiis cylindricis, utrinque obtusis quandoque uno apice leniter acutis, intus granuloso-farctis, continuis, hyalinis, 12-22 × 4,5-7.

Hab. in foliis vivis Anthurii crassinervii, culti in calidario Horti regii botanici neapolitani Ital. austr. (Trinchieri). — A Gl. minimo et a Gl. Anthurii satis distincta species.

64. Gleosporium Phaji Maubl., Bull. Soc. Myc. Fr. XXI (1906) p. 67. 7703

Maculis rotundatis primum luteolis, dein nigricantibus, demumque exaridis albidisque; acervulis in cellulis epidermicis evolutis, primum cuticula tectis, dein nudis, plerumque epiphyllis, minimis; conidiis ovoideis, sæpe subpiriformibus, utrinque rotundatis, rectis v. paululum reniformibus, 1-2 guttulatis granulatisque, hyalinis v. chlorinis, 20-22 × 6,5-7; conidiophoris cylindraceis, crassis, 12 × 4-4,5.

Hab. in foliis vivis Phaji sp. in calidariis Parisiis Galliæ.

65. Glæosporium Vandopsidis v. Keissl., Ann. Mycol. VII (1909) 7704 p. 293. — Amphigenum; maculis nullis; acervulis sparsis, ellipsoideis parvis rotundatis, fuscis; epidermide exarida tectis, demum rima oblonga perforantibus, c. 500 × 300; conidiophoris dense gregariis, rectis, brevibus, fuligineis, c. 25-30 × 3; conidiis oblongis, rectis, apice obtusis, hyalinis, eguttulatis, c. 12 × 5.

Hab. in foliis languidis Vandopsidis sp. in insula Salomon

Bougainville prope Kieta (RECHINGER).

66. Glæosporium Sobraliæ Maubl., Bull. Soc. Myc. Fr. XXII (1906) 7705 p. 68. — Maculis apicalibus, magnis, sordide ochraceis, linea atrofusca limitatis; acervulis sparsis amphigenis, epidermide dealbata primum tectis, linea obscura circumdatis, dein epidermide fissa v. perforata subnudis, <sup>1</sup>/<sub>4</sub> mm. diam.; pseudopycnidio applanato, dilute fusco; conidiis ovoideo-elongatis, ad basim plerumque attenuatis, granulatis, hyalinis, 16-19 × 5-6; conidiophoris rectis, 1-2-septatis, sæpe sub conidio acrogeno inflatis, usque ad 35 μ. long., 5 μ. crassis.

Hab. in foliis Sobraliæ sp. in calidariis Parisiis Galliæ.

67. Glæosporium Dendrobii Maubl., Bull. Soc. Myc. Fr. XXII (1906) 7706 p. 68. — Maculis magnis, pallide ochraceis, vix limitatis, extremam partem foliorum occupantibus; acervulis numerosis, interdum transverse seriatis, nigris, epiphyllis, minutis, 175 μ. diam.; pseudopycnidio dilute fusco, in cellulis epidermicis evoluto; conidiis oblongis, utrinque rotundatis, sed ad basim sæpe attenuatis, rectis v. paululum curvulis, granulatis, hyalinis, 15-20 × 5-7; conidiophoris cylindraceis, basi dilute fuscis, septatis, 35 μ. long.

Hab. in foliis Dendrobii Farneri in calidariis Parisiis Gallia. — Gl. Sobralice affine sed maculis conidiisque diversum.

68. Glæosporium Pteridis (Kalchbr.) Bub. et Kab., Fünft. Beitr. Pilzfl. 7707 Tir. in Ber. naturw.-med. Ver. Innsbruck XXX Jahrg. (1905-1906) Extr. p. 15. Ita vocandum Fusidium Pteridis Kalchbr. — Syll. IV, p. 31.

- GLEOSPORIOPSIS Speg., Myc. Arg. V, p. 404, in Anal. Mus. Nac. Buenos Aires XX (1910) (Etym. Glæosporium et opsis aspectus).

   Acervuli innato-erumpentes, pseudopycnidio rudimentario vestiti, fusci, minuti; conidia ellipsoidea, catenulata, hyalina. Est Glæosporium conidiis catenulatis.
- 1. Glæosporiopsis Vinal Speg., l. c., pag. 405, cum icon. Maculis 7708 amphigenis suborbicularibus, 2–5 mm. diam., determinatis, ex albido pallescentibus, linea angusta callosula ferruginea limitatis; acervulis epiphyllis innato-erumpentibus orbicularibus, 120–150  $\mu$ . diam., atris; conidiophoris bacillaribus ellipsoideis, dense constipatis 10–15  $\approx$  2-2,5 acrogenis, fumosis; conidiis ellipsoideis 12-14  $\approx$  6, dense granulosis, levibus, in catenulas 3-5-meras digestis.

Hab. abunde ad folia viva Prosopidis ruscifoliæ prope Formosa Argentina Amer. austr.

- VANDERYSTIELLA P. Henn., in Fl. du Bas- et Moy.-Congo, in Ann. Mus. du Congo v. II, fasc. III (1908) p. 229 (Etym. a cl. Vanderstrand collectore mycologo in Africa). Acervuli subepidermide erumpentes, disciformes, atro-cellulosi. Conidia subfusoideo-quadrangularia, continua, hyalino-fuscidula; conidiophora brevia, hyalina.
- Vanderystiella leopoldvilliana P. Henn., in Fl. du Bas- et Moy.- 7709
  Congo, in Ann. Mus. du Congo, v. II, fasc. III (1908) p. 229,
  fig. 2. Maculis rotundatis pallide exarescentibus, zona fusca
  circumdatis; acervulis amphigenis plerumque hypophyllis sparse
  gregariis sæpe concentrice dispositis, rotundato-disciformibus, angulatis, atris, 60-130 μ. diam.; conidiophoris brevibus, hyalinis;
  conidiis fusoideo-tetraedricis, acutis, hyalino-fuscidulis, 10-14 × 5-7.

  Hab. in foliis Derrid is sp., Leopoldville Congo (VANDERYST).

MYXOSPORIUM Link — Syll. III p. 722, X p. 464, XI p. 568, XIV p. 1013, XVI p. 1004, XVIII p. 459.

1. Myxosporium acerinum Peck, Bull. Torr. Bot. Cl. XXXVI (1909) 7710 p. 338. — Acervulis minutis in cortice nidulantibus, sparsis, griseis; conidiis exsilientibus et massas minutas inæquales albidas formantibus, maximis, oblongis, sæpe infra attenuatis, intus granulosis, hyalinis, 24-40 × 8-12.

Hab. in ramis Aceris saccharini, River Forest Illinois Amer. bor. (E. T. et S. A. HARPER).

2. Myxosporium Camelliæ Peyl, Lotos VII (1856) p. 27, fig. 3. — 7711

Acervulis gregariis, epidermide rupta rimose erumpentibus; conidiis cylindraceis utrinque rotundatis, subrectis, in tænias gelatinosas, flexuosas, pallide incarnatas eructatis.

Hab. in ramis Camelliæ japonicæ in calidariis udis, Kacin Bohemiæ (Peyl).

3. Myxosporium longisporum Edgert., Ann. Mycol. VI (1908) p. 53, 7712 cum icon. — Acervulis erumpentibus subcorticalibus, magnitudine variabilibus, usque ad 1,5 mm., sparsis v. gregariis; conidiophoris e stromate tenui pseudoparenchymatico orientibus, brevissimis; conidiis rectis v. curvulis, hyalinis, continuis, 30-48 × 12-15.

Hab. in ramis Liriodendri Tulipiferæ, Poughkeepsie N. Y. Amer. bor.

4. Myxosporium rhoinum Hollós, Ann. Mus. Nat. Hung. VI (1908) 7713 pag. 535. — Acervulis dense gregariis, subcutaneo-erumpentibus, albidis, carnosulis, 1 mm. crassis; cirris globuliformibus, albis; conidiis ellipsoideis, continuis, hyalinis, 1-2-guttulatis, 28-32 × 12-14; conidiophoris fasciculatis, hyalinis 16-20 × 2.

Hab. in ramis emortuis Rhois glabræ, Kecskemét Hungariæ. — A Myx. Rhois Sacc. differt conidiis majoribus, angustioribus

5. Myxosporium necans Peck, N. York State Mus. Bull. n. 122 (1908) 7714 p. 33 et 160. — Acervulis in lineis longis sub epidermide nidulantibus, erumpentibus, intus albidis; conidiis oblongo-ellipsoideis, in massas albas v. flavido-albas cirrosas, expulsis, sæpe binucleatis, 6-10 × 2-3.

Hab. in cortice Pruni virginianæ quam valde vexat, North Greenbush Amer. bor.

6. Myxosporium Pruni-Mahaleb D. Cruch. in Moreillon M. Schweiz. 7715 Zeitschr. für Forstwesen LXI (1910) p. 152-155, cum icon. — Acervulis pustuliformibus innato-erumpentibus, brunneis, dein nigricantibus, ambitu subcircularibus, disco plano dein umbilicato, circ. 100-500 μ. diam.; conidiis ovoideis dein cylindraceis, utrinque rotundatis, rectis, subinde medio leviter angustatis, 15-20 × 9, hyalinis, intus nubilosis; conidiophoris fasciculatis, clavulatis, longitudine variis, 8-16 × 4, hyalinis.

Hab. in ramis, quos vexat et deformat, Pruni Mahaleb, Waadtländer Juræ Helvetiæ. — Socia adest Cucurbitaria Pruni-Mahaleb Allesch., quoque pathogena. Ejusdem asci nondum descripti — cfr. Syll. IX, p. 917 — ex cl. Cruchet l. c. fig. 2, sunt ovoideo-elongati 75 × 27, sporidia subdisticha, oblongo-ovoidea, ir-

regulariter 5-septato-muriformia, utrinque obtuse acutata, hyalina, 20-22 × 9-10. — Ob sporidia achroa species Catharinia Pruni-Mahaleb (Cruch.) Sacc. nuncupanda.

7. Myxosporium corticola Edgert., Ann. Mycol. VI (1908) pag. 48, 7716 cum icone, *Macrophoma Malorum* Paddok N. Y. Agr. Exp. St. Bull. 163 (1899) p. 203. — Acervulis subcorticolis, erumpentibus, 1-2 mm. diam., sparsis; conidiophoris brevissimis e stromate basilari pseudoparenchymatico orientibus; conidiis rectis v. curvulis, cylindraceis, hyalinis, continuis, dense granulosis, 18 32 × 6-9.

Hab. in ramis cancerosis Piri et Mali, Mexico New York Amer. bor.

8. Myxosporium depressum Sacc., Ann. Mycol. VI (1908) p. 566. — 7717 Acervulis laxe gregariis, corticolis, innato-erumpentibus, applanato-pulvinatis, cortice rimoso cinctis, ½, ½, mm. diam., sordide carneis, dein fuscescentibus, excipulo proprio omnino nullo; conidis fusoideis, deorsum magis acutatis, 9-10 × 2-3, eguttulatis, hyalinis; conidiophoris bacillaribus, dense fasciculatis, hyalinis, 20-25 × 1.3, e strato proligero celluloso, fuligineo oriundis.

Hab. in ramis subemortuis Syringæ vulgaris, Yates, Orleans County, N. Y. Amer. bor. (Fairman). — Forte status primigenus Phomæ depressæ.

- 9. Myxosporium Roumegueri Sacc. Syll. III, p. 722 (ut subspec. 7718 Myx. incarnati) fm. coryleum Sacc., Ann. Mycol. VII (1909) p. 436. Pallide incarnatum; conidiis oblongo-ellipsoideis, 26—28 × 8-10; conidiophoris bacillaribus 18-25 × 3-4, apice incrassatis. Hab. in cortice Coryli Avellanæ, Rangsdorf pr. Zossen Germaniæ (H. Sydow).
- 10. Myxosporium castaneum Peck, N. Y. St. Mus. Bull. 131 (1909) 7719 p. 24. Acervulis gregariis, orbicularibus, ½-3/3 mm. lat., in cortice nidulantibus, epidermide rupta circumscriptis, pallidis vel subgriseis; conidiis oblongis v. ellipsoideis, hyalinis, 6-10 × 3-4; conidiophoris filiformibus, sporulis æqualibus v. longioribus.

Hab. ad ramos emortuos Castaneæ dentatæ, Queens Co., Amer. bor. (J. Mickleborough).

11. Myxosporium quercinum Lasch in Kl. Herb. viv. mycol. n. 1076 7720 (1846) [nomen nudum].

Hab. in ramis quercinis in agro Driesen.

12. Myxosporium Balmoreanum Speg., Myc. Argent. V pag. 409, in 7721 Anal. Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; acervulis dense gregariis subcircinantibus suborbicularibus 10-15 mm.

diam. succineis; conidiophoris fasciculatis, ramulosis.  $30-50 \approx 2-3$ , hyalinis; conidiis cylindraceis utrinque rotundatis  $22-26 \approx 5-7$ , rectis v. curvulis, continuis, hyalinis.

Hab. ad rhachides languentes Kentiæ Balmoreanæ cultæ, Buenos Aires Argentina Amer. austr. (E. AUTRAN).

# **NÆMOSPORA** Pers. — Syll. III p. 746, X p. 507, XIV p. 1018, XVIII p. 462.

Næmospora lasmini Griff. et Maubl., Bull. Soc. Myc. Fr. XXV 7722 (1909) p. 60, cum icon. — Acervulis subepidermicis, applanatis, 1-2 mm. diam., aurantiacis, hymenio undulato; conidiis minutis, irregulariter ovoideis cylindraceis v. subpiriformibus, non v. vix arcuatis, hyalinis, coacervatis pallide roseis, 4-7 × 2-2,5; conidiophoris acicularibus, 1-2-verticillato-ramosis, 30 μ. longis.

Hab. in ramulis siccis Jasmini officinalis, Rigny-sur Arroux Gallie (Flaceolet). — Ab omnibus congeneribus forma conidiorum diversa.

2. Næmospora Castaneæ Bres., Fungi gall., Ann. Myc. VI (1908) 7723 p. 47, Tubercularia Castaneæ Pers.? — Acervulis dense gregariis, subcutaneis, mox in cirrum gelatinosum, tuberculosum, demum tortuoso-circinatum, aurantio-carneum, erumpentibus; conidiis subclavatis vel subfusoideis, hyalinis, 8-9 × 2¹/₂-3; conidiophoris ramulosis, 30-40 μ. longis, basi 3 μ. crassis suffultis.

Hab. in capsulis dehiscentibus Castaneæ vescæ, Dessau Germania (Staritz).

3. Næmospora Plantaginis Ces. in Klotz. Herb. viv. mycol. n. 1664 7724 (1852) (nomen nudum).

Hab. in ? caule Plantaginis in agro Vercellensi Ital. bor. — Socia Phoma occulta Ces. (= Ph. subordinaria Desm.?) — Auctor ita speciem indicat: Næmosp. (Myxosporium) Plantaginis, sed verisimiliter ab utroque genere discrepat.

## MELANOSTROMA Corda — Syll. III p. 728, XI p. 569.

Melanostroma Tozziæ Maire, Œsterr. Bot. Ztschr. LVII (1907) 7725
 p. 423. — Caulicola v. epiphylla; stromate ex hyphis brunneoolivaceis contexto, maculas nigras, inflatas, rotundatas v. irregulares, usque ad 5-6 μ. latas efformante, acervulis in stromate
sparsis, rotundatis, subcuticularibus, 300-600 μ. diam.; conidiophoris dense stipatis, simplicibus, cylindricis, dilute olivaceis, 25 ×
2; conidiis solitariis acrogenis, hyalinis, levibus, oblongo-cylin-

draceis v. cylindraceis, utrinque obtusis, rectis v. curvulis, 4-6 ≥ 1,5-2.

Hab. in caulibus foliisque vivis Tozziæ alpinæ prope Maurach 1600 m. alt. Tirolia transalp.

#### MYXOSPORELLA Sacc. — Syll. III p. 729.

1. Myxosporella Populi Jaap, Weit. Beitr. Pilzfl. nordfries. Ins., Schrft. 7726 Naturw. Ver. Schlesw.-Holst., Bd. XIV (1907) Heft 1, p. 30. — Acervulis rotundatis 0,5-1 mm. latis, epidermide lacerata cinctis, subimmersis, albis v. roseo-albis; conidiis catenulatis, mox secedentibus, ellipsoideis, ovoideis v. elongatis, 7-14 × 3,5-5, raro ovoideo-globosis 4-5 μ. longis, hyalinis, rotundatis v. subtruncatis, unilocularibus, sæpe guttulatis, rectis v. curvulis; conidiophoris simplicibus, usque ad 15 μ. long., hyalinis.

Hab. in ramis siccis Populi albæ prope Borgsum in ins. Föhz Frisia.

#### BLENNORIA Fr. - Syll. III p. 730, X p. 466, XVIII p. 461.

Blennoria Acantholimonis P. Henn. in Kabát et Bubák Fungi imp. 7727 exs. n. 529 (1909). — Acervulis pulvinatis, erumpentibus, epidermide laciniata cinctis, sparsis vel gregariis, fuscis; conidiophoris parce ramosis, filiformibus, hyalinis, ca. 2 μ. crassis; conidiis catenulatis, cylindraceis, utrinque obtuso-rotundatis, eguttulatis, 8-13 × 2-3.

Hab. in foliis siccis Acantholimonis glumacei in horto bot. Dahlem Germaniæ.

2. Blennoria Lawsoniana Sacc., Ann. Mycol. VII (1909) p. 436. — 7728 Sporodochiis cortice innatis, dein erumpentibus, hinc inde gregariis, pulvinatis, 0,4-0,5 mm. diam., sordide albis, compactiusculis sed subfragilibus et pruinosulis, senio collabescendo incavatis; conidiophoris fasciculatis, filiformibus, simplicibus, varie furcatis, 18-24 ≈ 1,7, hyalinis; conidiis cylindraceis, utrinque obtusis, rectis, 10-12 ≈ 2, catenulatis sed facile secedentibus, hyalinis.

Hab. in ramulis morientibus Chamæcyparis Lawsonianæcultæ, pr. Tamsel Germania (P. Vogel). — Videtur affinis Blennoriæ albæ.

TRULLULA Ces. — Syll. III p. 731, X p. 467, XVI p. 1005, XVIII p. 462.

1. Trullula atro-fuliginea Speg., Myc. Arg. V, pag. 407, Anal. Mus. 7729 Nac. Buenos Aires XX (1910). — Matrice infecta quandoque macula pallida indeterminata notata, quandoque tota concolore sordide grisea; acervulis hinc inde densiuscule gregariis, primo epidermide tectis dein nudis, planiusculis v. vix convexis, orbicularibus, 200-350 μ. diam., atro-fuligineis; conidiophoris bacillaribus 20-25 × 1,5-2, fasciculatis v. e basi ramosis superne obtusiusculis subnodulosis monospermis, deorsum hyalinis, sursum fumosis, margine acervulorum paraphysibus filiformibus duplo triplove longioribus 50-80 × 2 cincto; conidiis ellipsoideis utrinque subacutiuscule rotundatis, 6-10 × 3-6, eguttulatis, obscure fuligineis.

Hab. ad sarmenta arida subputrescentia Vitis viniferæ, La Plata Argentina Amer. austr. — Tr. olivascenti Sacc. certe cognata, sed conidiis duplo crassioribus obscurioribusque distincta videtur.

2. Trullula nigerrima Speg., Myc. Argent. V, p. 407, in Anal. Mus. 7730 Nac. Buenos Aires XX (1910). — Maculis sæpe totam matricem ambientibus, sordide cinerescentibus; acervulis gregariis amphigenis erumpentibus, hemisphæricis v. subconoideis, 200-250 μ. diam., compactiusculis, aterrimis; conidiophoris filiformibus 75-80 × 2, deorsum coalescentibus sursum liberis, apice acutiusculis, monospermis; conidiis ellipsoideis, utrinque subacutiusculis, rotundatis 8-10 × 4-4,5, sæpius biguttulatis, levibus, subopace fuligineis.

Hab. ad cladodia arida Rhypsalidis Lorentzianæ, La Plata Argentina Amer. austr.

COLLETOTRICHUM Corda — Syll. III p. 735, X p. 468, XI p. 569, XIV p. 1015, XVI p. 1006, XVIII p. 462 \*).

1. Colletotrichum Canangæ Koord., Bot. Unters. Java (1907) p. 220, 7731 fig. 33 III. — Acervulis foliicolis, sparsis, epidermide erumpentibus, 0,1 mm. diam.; setulis fuscis, rigidis, continuis v. 1-2-septatis, haud raro articulatis, 60-80 μ. longis, rectis v. curvulis, apice acutis; conidiis cylindraceis, rectis v. subrectis, hyalinis, utrinque rotundatis, 13-15 × 4-5; conidiophoris brevissimis.

Hab. in foliis vivis Canangæ odoratæ in Purworedjo prov. Kedu Java (Koorders).

<sup>\*)</sup> Non immerito forsitan el. prof. Voglino, in Ann. R. Accad. Agric. Torino, XLIX (1907) p. 24-25 extr. ducit Vermiculariam trichellam et Verm. circinantem ad genus Colletotrichum.

2. Colletotrichum Vitis Istvánffi, Mitt. k. Hungar. Ampel. Central—7732 Anst. II (1902) p. 239, t. XXIV, f. 206-209. — Acervulis gregariis 240-400 μ. diam., ramicolis, pulvinatis, flavido-brunneis v. atris, epidermidem rumpentibus ejusdemque fragmentis demum cinctis, basi cellulis parenchymaticis contextis; setulis in pseudo-conceptaculum congregatis, copiosis, rectis, hinc inde arcuatis, cylindraceo-conicis, cuspidatis, atro-brunneis, subcompressis, basi rarissime 1-2-septatis et leniter inflatis, 140-160 × 6-9; conidiis fusiformibus, arcuatis, utrinque acutis, hyalinis, 21-25 × 2,5, uni-nucleatis; conidiophoris intra setulas dense fasciculatis, filiformibus.

Hab. in sarmentis Vitis viniferæ in Hungaria. — Ab affinibus Coll. lineola et C. ampelino, hinc conidiis fusoideis, illinc acervulis non seriatis imprimis distinctum.

3. Colletotrichum ampelinum Cav. — Syll. X, p. 470 — fm. rami- 7788 cola Voglino, Atti R. Acc. Sc. Torino XLIII (1907-1908) p. 96 (250). — Maculis oblongis, griseis; acervulis latis, setulis rigidis, rectis, 1-septatis, fuligineo-olivaceis, basi incrassatis, pallentibus; conidiophoris cylindraceis, 17 × 7; conidiis oblongo-fusoideis, 17-20-22 × 4-5.

Hab. in ramis Vitis in Instituto Valsalice, Torino Italiæ bor. (Tonelli).

4. Colletotrichum anonicola Speg., Myc. Argent. V, p. 406, in Anal. 7784 Mus. Nac. Buenos Aires XX (1910). — Maculis subamphigenis suborbicularibus dein confluendo difformibus repandis, centro subcinerescentibus ambitu sordide fuscescentibus per ætatem rimulosis atque frustulatim deciduis; acervulis sparsis v. laxe gregariis innato-erumpentibus, sublenticularibus, 90-150 μ. diam., atris, setulis marginalibus paucis opace fuligineis 40-60 × 5; conidiis subcylindraceis, rectis, 14-16 × 4-5, nubilosis v. guttulatis, hyalinis.

Hab. ad folia viva Anonæ Cherimoliæ in hortis prope Tucuman Argentina, Amer. austr.

5. Colletotrichum Yerbæ Speg., Anal. Mus. Nac. Buenos Aires XVII 7785 (1908) p. 137. — Maculis suborbicularibus 5-15 mm. diam., superne albescentibus v. cinerescentibus inferne fuscescentibus, margine undulato-repandulis, linea obscuriore angusta sæpius limitatis; acervulis epiphyllis in maculis hinc inde laxe gregariis vix convexulis, 100-150 μ. diam., primo epidermide velatis dein erumpentibus, margine tunica flexuosa subprosenchymatica fumososubviolascenti vestitis, setulis paucis 1-2-cellularibus, cylindraceoconoideis, acutis, 10-30 ≈ 4-5, concoloribus ornatis; conidiophoris

cylindraceis constipatis,  $8-10 \approx 4-5$ , hyalinis, monospermis; sporulis e cylindraceo ellipsoideo-obovatis, hyalinis, utrinque obtusis, eguttulatis,  $10-12 \approx 5-7$ .

Hab. ad folia languida Ilicis paraguariensis in dumetis prope San Pedro Misiones Argentina.

6. Colletotrichum Dictamni Hollós, Ann. Mus. Nat. Hung. VI (1908) 7786 pag. 536. — Maculis irregulariter orbicularibus, ferrugineis, 3-5 mm. diam., margine obscurioribus; acervulis gregariis epiphyllis, erumpentibus; setulis paucis, erectis v. leviter curvulis, continuis, basi 4-5 μ. cr., sursum angustioribus, 60-80 μ. longis, pallide fuscis, apicem versus paullulum decoloratis; conidiis oblongo-cylindraceis, utrinque acutulis, continuis, granulosis, 2-3-guttulatis, hyalinis, 20-22 × 4-5; conidiophoris fasciculatis, hyalinis 8-10 μ. long.

Hab. in foliis vivis Dictamni Fraxinellæ prope Nagy-Körös Hungariæ.

7. Colletotrichum Durionis Koord., Bot. Untersuch. Java (1907) p. 218, 7787 fig. 33 IV. — Acervulis epiphyllis, sparsis, erumpentibus 90-150 μ. diam., in maculis latis irregularibus fuscis insidentibus; setulis 20-36 μ. longis, fuligineis, continuis v. obscure 1-septatis, subrectis v. curvulis, apice acutis, pro maxima parte periphericis, haud fasciculatis; conidiis continuis, hyalinis, rectis v. curvulis, utrinque rotundatis, 10-16 ≈ 3-6, plerumque 15 ≈ 5; conidiophoris continuis, brevissimis, hyalinis, vix 3 μ. longis.

Hab. in foliis vivis Durionis zibethini prope Purworedjo prov. Kedu Java (Koorders).

8. Colletotrichum luxifilum v. Hall et Drost, Rec. Trav. Bot. Néerl. IV 7788 (1908) p. 243, tab. IX-XXV, extr. pag. 37 (diagn.). — Acervulis solitariis, suborbicularibus, pallidis v. leviter roseis, 100-300 μ. d. (in culturis usque ad 2,5 mm.); setulis raris filiformibus sursum tenuatis obtusulis, 2-4-septatis, nigricantibus, 50-120 ≈ 3,5-4,5, apice 1,2-2 μ. cr.; conidiophoris dense fasciculatis, continuis, hyalinis, bacillaribus, conidium longitudine subæquantibus; conidiis ovoideo-oblongis, 13-19 ≈ 4-5, subinde medio leniter constrictis, utrinque rotundatis, levibus, hyalinis, granulosis, vacuolum valde refringens medio sæpe continentibus.

Hab. in ramulis, gemmis, fructibus Theobromæ Cacao, quam maxime vexat, Surinam et Demerara in Ind. occid. — Cladomanias peculiares (Krulloten) generat. Cfr. eximiam et fusam monographiam cll. van Hall et Drost s. c.

9. Colletotrichum Cradwickii Bancroft West Ind. Bull. X (1910) n. 5 7739

et Handb. Diseas. West India plants (1910) p. 44, t. VI, f. 2-3. Acervulis erumpentibus, primum flavidis dein rubescentibus; conidiophoris hyalinis conidia magnitudine superantibus; conidiis hyalinis, in massa rubidis, elongatis, medio constrictis,  $14-17 \approx 5$ ; setis rectis, rigidis, apice acutis, 2-3-septatis, purpurascentibus,  $70-100 \approx 4-6$ .

Hab. in ramis Theobromæ Cacao, in Jamaica.

10. Colletotrichum Grossulariæ Jacz., Bull. Soc. Myc. Fr. XXII (1906) 7740 p. 124, cum icon. — Maculis orbicularibus v. indeterminatis, confluentibus, brunneis; acervulis erumpentibus, subcutaneis, disciformibus, minutis, brunneis, setulis numerosis, atro-brunneis, erectis, apice tenuatis vestitis; conidiophoris hyalinis, cylindraceis, 10-12 μ. long.; conidiis subhyalinis v. olivaceis, cylindraceis, unicellularibus, 20-25 × 4-6.

Hab. in fructibus Ribis Grossulariæ, in Rossia orientali.

11. Colletotrichum fructus (Stevens et Hall) Sacc., Volutella fru-7741 ctus Stevens et Hall, Journ. of Mycol. XIII (1907) p. 97, cum icon. — Acervulis copiosis, concentrice dispositis, subcuticularierumpentibus, elevatis, nigris, 150-400 μ. diam., mycelio albo (culto in substantiis carbo-hydratis nigricante); setis in tota superficie sporodochii nascentibus, nigris, continuis v. 1-5-septatis, acutis, levibus, 100-400 × 5-8; conidiophoris elongatis, hyalinis, simplicibus 25-35 × 3; conidiis hyalinis v. dilutissime olivaceis, continuis, oblongo-fusoideis v. falcato-fusoideis, 17-23 × 2,5-3,5.

Hab. in fructibus Piri Mali in Carolina sup. — Ob setas nigras et acervulos initio subcutaneos ad gen. Colletotrichum propius accedit.

12. Colletotrichum Erythrinæ Koord., Bot. Unters. Java (1907) p. 219, 7742 fig. 33 II. — Acervulis sparsis, epiphyllis, erumpentibus, in maculis circularibus griseo-fuligineis insidentibus; setis paucis 50 μ. circ. longis, fuscis, obscure septatis, subrectis v. flexuosis, apice acutis; conidiis continuis, hyalinis, rectis, utrinque truncatis vel rotundatis 15-16 × 4,5-5.

Hab. in foliis vivis Erythrinæ ovalifoliæ prope Penunggalan prov. Kedu Java (Koorders).

13. Colletotrichum Trifolii Bain., Journ. of Mycol. XII (1906) p. 193. 7748

— Maculis atris v. fuscis, sæpe depressis; acervulis erumpentibus, sparsis v. gregariis; conidiophoris hyalinis cylindraceis v. fusoideis, conidiis prope æqualibus; conidiis hyalinis, rectis, utrinque rotundatis, 11-13 × 3-4; setulis inter conidia orientibus, continuis Syll. fung. XXII (VI-1913)

v. uniseptatis, paucis v. numerosis, fuligineis, ad apicem pallidioribus,  $39-62 \approx 4-7$ , sæpe sinuosis v. nodulosis.

Hab. in petiolis caulibusque vivis, rarissime in foliis, Trifolii pratensis et Medicaginis sativæ, in Amer. bor. compluribus locis.

14. Colletotrichum hedericola Laub. in Arbeiten Kais. Biolog. An-7744 stalt für Land- u. Forstwirtschaft, V (1907) p. 503. — Acervulis amphigenis, in maculis orbicularibus brunneis 1-8 mm. latis insidentibus, rarius petiolicolis vel ramicolis, dense gregariis; setulis rectis, atris, septatis, basi 7  $\mu$ . crassis, usque ad 140  $\mu$ . longis; conidiis continuis, hyalinis, oblongis, subfusiformibus, parum curvatis, 17-25  $\approx$  3 $^{4}$ /, plerumque guttatis.

Hab. in foliis petiolis ramulisque Hederæ Helicis quam vexat, Wiener-Neustadt Austriæ.

15. Colletotrichum Ixoræ Griff. et Maubl., Bull. Soc. Myc. Fr. XXV 7745 (1909) p. 59, cum icon. — Maculis majusculis, sæpe marginalibus, pallidis, exsiccatis, linea angusta rufo-cinctis; acervulis amphigenis, inordinatis, rotundatis vel ellipsoideis, nigris, usque ad 0,75 mm. latis; stromatibus applanatis, brunneis, mycelio septato guttulato 4-9 μ. cr. adnexis; conidiophoris cylindraceis, basi septatis, 10-15 ≈ 5,5-6; conidiis elongatis v. clavatis, hyalinis, 1-2-guttulatis, 14-16 ≈ 5-7; pilis raris, conidiophoris immixtis, brevibus, usque ad 55 μ. longis, 1-2-septatis, flexuosis, brunneis, superne subacutis pallidioribusque.

Hab. in foliis vivis Ixoræ albæ in calidariis Grignon Galliæ.

16. Colletotrichum Briosii Turconi, in Atti R. Ist. bot. Pavia XI 7746
(1905) p. 314-318, t. XXII, fig. 1, 4-6. — Maculis apicalibus totum folii apicem occupantibus, avellaneis, deorsum margine fusco limitatis; acervulis hypophyllis v. amphigenis, magnis, 400-500 μ. diam, irregulariter sparsis v. subgregariis, primo tectis, subepidermicis, demum epidermide lacerata erumpentibus, superficialibus, setulis rigidulis, erectis v. subflexuosis (parietes interdum subundulatas præstantibus) continuis v. uniseptatis, fuligineis, subcæspitosis, acervuli parte media plerumque (rarissime margine) insitis, 150-170 × 4-6; conidiophoris dense fasciculatis, pallide fuscidulis, apice hyalinis, 25-32 × 4, cylindraceis, continuis; conidiis acrogenis, cylindraceis v. cylindrico-ellipsoideis, utrinque rotundatis, granulosis, 14-18 × 5-6,5, hyalinis.

Hab. in foliis Cinnamomi Burmanni culti in horto botanico, Pavia Italiæ borealis.

17. Colletotrichum Cinchonæ Koord., Bot. Unters. Java (1907) p. 220. 7747 — Maculis pallidis foliicolis; acervulis sparsis, punctiformibus, epidermide erumpentibus, vix 0,1 mm. diam.; sporulis oblongis, subrectis v. curvulis, utrinque obtusis v. rotundatis, 9-18 × 3-5, plerumque 10-12 × 3,5-4, hyalinis; setulis paucis, fuscis, 1-pluri-septatis, subrectis v. curvulis v. flexuosis, 60-75 μ. longis, basi 4-7 μ. diam.; sporophoris cylindraceis, hyalinis, c. 10 μ. longis.

Hab. in foliis vivis Cinchonæ sp. cultæ prope Auggrong-

gondok prov. Kedu Java (Koorders).

18. Colletotrichum nigrum Ell. et Halst., in Halsted New Jersey Agr. 7748 Coll. Exp. Stat. Rep. Bot. Dep. (1895) p. 297. — Acervulis gregariis erumpenti superficialibus nigris; setulis filiformibus parce septatis nigricantibus, sursum cuspidatis pallidioribus basi incrassatis, subrectis; conidiis oblongo-cylindraceis utrinque rotundatis, intus granulosis hyalinis, majusculis, conidiophoris, bacillaribus dense stipatis, conidio duplo triplove longioribus.

Hab. in fructibus Capsici sp. edulis cui valde noxium. — Descriptio ex icone tantum in l. c.

19. Colletotrichum Lycopersici Chester, Trans. Brit. Mycol. Soc. I 7749 (1900) p. 156. — Acervulis copiosis, dense gregariis, e brunneo nigricantibus, applanatis, in areis depressis subcircularibus demum confluentibus nascentibus, 95-150 μ. diam.; setis abundantibus atro-brunneis, plerumque curvatis, rariis undulatis v. rectis, hinc inde subinde nodulosis, sursum tenuatis, septatis, 65-112 × 5; conidiis oblongis, utrinque subacutis, 18-20 × 4; conidiophoris brevibus, gracilibus, ex hypostromate crassiusculo oriundis.

Hab. in fructibus Solani Lycopersici prope Worcester et

Lythe Britanniæ.

20. Colletotrichum Heveæ Petch, Ann. Roy. Bot. Gard. Peradenyia 7750 III Pt. I (1906) p. 8. — Acervulis nigris, sparsis, epiphyllis, 0,1-0,25 mm. diam., setis violaceo-nigris, uni-vel bi-septatis, obtusis, ad 90 μ. longis cinctis; conidiis oblongis, utrinque rotundatis, hyalinis, granulatis, 18-24 × 7,5-8; conidiophoris 20-30 × 6-7, apice incrassatis.

Hab. in foliis plantularum Heveæ brasiliensis, in ins. Ceylon.

21. Colletotrichum Vincæ Speg., Myc. Argent. V p. 408, in Anal. 7751 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis determinatis orbicularibus, 2-5 mm. diam., pallide cinerescentibus areola angusta livescente cinctis; acervulis epiphyllis erumpenti-

bus paucis in quaque macula, lenticularibus 80-90  $\mu$ . diam., atris, pseudopycnidio stellatim dehiscente tectis; setulis continuis flexuosulis,  $40-50 \approx 4-5$ , basi non v. vix incrassatulis, subopace fuligineis; conidiis ellipsoideo-cylindraceis  $16 \approx 7$ , rectis, biguttulatis, hyalinis.

Hab. ad folia languida Vincæ majoris in hortis Santa Ca-

talina prope Buenos Aires Argentina Amer. aust.

22. Colletotrichum Acanthosyridis Speg., Myc. Argentinens. V, pag. 7752 405, in Anal. Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis subdeterminatis, centro candidis ambitu pallide rufescentibus; acervulis epiphyllis innato-erumpentibus orbicularibus, 200-250 μ. diam., atris, margine setulis fuligineis, 50 × 3, simplicibus, subobtusiusculis 1-2-cellularibus ornatis; conidiis subellipsoideis 14-16 × 7-8, nubiloso-farctis, hyalinis.

Hab. ad folia viva Acanthosyridis falcatæ ad margines Rio Caramillo Salta Argentina Amer. austr.

23. Colletotrichum Platani Da Camara, Bol. Soc. Broteriana XXV 7753 (1910) Extr. p. 21. — Acervulis plano-convexiusculis, oblongis, sparsis, subepidermicis, dein erumpentibus; setulis ceratiformibus nigricantibus, apice attenuatis, parce septatis, usque ad 200 μ. longis; conidiis acrogenis, fusoideis, hyalinis, curvulis, utrinque acutis, granulosis v. pluriguttulatis, 25-28 × 3-5.

Hab. in petiolis nervulisque Platani orientalis, horto botanico Coimbra Lusitaniæ (A. Moller).

24. Colletotrichum Ficus Koord., Botan. Untersuch. Java (1907) p. 19 et 7754 passim, tab. I, fig. 1-3. — Conidiis maturis rectis v. curvulis, utrinque obtusis v. acutiusculis, in massa pallide roseis v. roseis; setulis plerumque non fasciculatis plerumque 40-90 μ. long. v. raro usque ad 150 μ.

Hab. parasiticum in foliis Fici elasticæ et F. Benjaminæ quandoque etiam parasiticum v. saprophyticum in cortice ramorum, in insula Java. — In culturis setulæ non occurrunt et tunc species Glæosporio similis.

25. Colletotrichum Caricæ Stevens. et Hall, Ztschr. für Pflanzenkr. 7755 XIX (1909) p. 68, tab. II, fig. 1-8. — Cæspitulis brunneis, inde nigris, sphæroideis, numerosis, parvis, 85-250 μ. cr.; setulis nullis v. 1-12, elongatis, irregularibus, angustatis, acutis, obscuris, rigidis, septatis, 22-106 × 2-6, hyalinis; conidiis regularibus, elongatis, non septatis, hyalinis, 8,7-20 × 3,5-6.

Hab. in fructibus et foliis Fici Caricæ, North Carolina, in Amer. boreali.

26. Colletotrichum echinatum Massee, Kew Bull. n. 7 (1906) p. 257. 7756 Maculis indeterminatis, pallescentibus; acervulis laxe gregariis lenticularibus, mox erumpentibus, 350-400 μ. diam.; conidiis hyalinis v. chlorinis, cylindraceis, utrinque obtusis, 22-26 × 8-9, conidiophoris cylindraceis, sursum subattenuatis, pallide griseis 40-50 × 8 suffultis; setulis numerosissimis, rigidulis, fuligineis, cylindraceo-attenuatis, septatis, 100-120 × 8.

Hab. ad corticem arboris cujusdam ignotæ, Aburi Gold Coast Guineæ Africæ occ. (Johnson).

27. Colletotrichum Dracænæ Allesch. in Rab. Krypt. Flora, Pilze 7757 VII p. 560 (1904). — Acervulis amphigenis, sparsis v. gregariis, carneis dein nigris, epidermide lacerata tectis; setulis obscure brunneis, apice angustatis, obtusis, parum septatis, 40-60 ≈ 2,5-3,5; conidiis elongato-cylindraceis, unilocularibus, utrinque rotundatis, guttulatis, subhyalinis, 14-18 ≈ 5-7; conidiophoris confertis, brevibus, hyalinis.

Hab. in foliis languidis Dracænæ latifoliæ in calidario in Horti botanici München Bavaria (J. E. Weiss).

28. Colletotrichum dracænicola Sacc. et Trott. Colletotrichum Dracænæ Trinchieri Rend. R. Ac. Sc. Napoli (1909) fasc. 8-12, Extr.
p. 7. — Maculis amphigenis, extremitatem foliorum occupantibus,
rarius marginalibus, sinuosis, exaridis, deorsum linea elevata castaneo flavida eximie limitatis, 5-10 cm. longis, 2½-4½ cm. latis; acervulis epiphyllis vel hypophyllis, numerosissimis, dense
gregariis, subcutaneis, punctiformibus, sublenticularibus, 110-196
μ. diam., 73-110 μ. altis; setulis continuis vel parce septatis,
rectis vel curvulis, cuspidatis, fuligineis, 56-98 × 2-4,5; conidiophoris
nunquam visis; conidiis cylindraceis, rarius clavatis, utrinque
rotundatis, distincte 1-3-guttulatis, hyalinis, 12-19,5 × 2-7.

Hab. in foliis vivis Dracænæ fragrantis, aliquando socio Glæosporio polymorpho in Horto regio botanico neapolitano Ital. austr. (TRINCHIERI). — Forte status senescens Coll. Dracænæ Allesch.

29. Colletotrichum Himantophylli Kab. et Bub., Myc. Beitr., Hedwi- 7759 gia, Bd. XLVI (1908) p. 297. — Maculis amphigenis, primum parvis, rubro-lateritiis forma irregularibus; acervulis amphigenis, sparsis, profunde immersis, prominentibus, epidermide tectis, nigris, rotundatis v. elongatis, 300 μ. diam.; setulis immersis rectis v. curvatis, obscure brunneis, basi plerumque fortiter incrassatis, apice angustatis nodulosis, basi 1-2-septatis, 100 μ. long. medio

7759

4  $\mu$ . cr.; conidiis cylindraceis, utrinque rotundatis, rectis v. curvulis,  $14\text{-}24 \approx 4\text{-}4.5$ , contextu granuloso, flavidulis; conidiophoris olivaceo-brunneis, subparallelis, multiseptatis, supra liberis pallidioribus.

Hab. in foliis Himantophylli miniati, prope Turnau Bohemia (KABAT).

30. Colletotrichum Orthianum A. Kostlan in Festschrift zum 70 Ge- 7760 burtstage v. A. Orth, Berlin. (1905) cum 3 tab.

Hab. in cumpluribus Orchidaceis in Cypripedium Cattleya, Cœlogyne, Dendrobiun, Vanda in tepidariis cultis Berolini, Germania. — Observante cl. Magnus in Bot. Centralbt. (1905) II p. 423, a Coll. Orchidearum et Coll. roseolo vix diversum, sed ipse diagnosim non vidi. Auctor in culturis quoque chlamydosporas eduxit.

31. Colletotrichum Pothi Koord., Botan. Untersuch. (1907) Javap. 219. 7761

— Acervulis foliicolis sparsis, in maculis griseis angulosis insidentibus, 80-200 μ. diam.; setulis numerosis, exertis, fuscis v. atris, curvatis, apice acutis, 60-80 μ. longis basi 4-5 μ. latis, continuis v. 1-2-septatis, irregulariter dispositis, haud fasciculatis; conidiis hyalinis continuis, breviter cylindraceis utrinque rotundatis v. truncatis, rectis v. curvulis, 8-10 × 3-3,5; conidiophoris cylindraceis continuis, 10 × 5.

Hab. in foliis Pothi in Purworedjo prov. Kedu Java (Koorders).

32. Colletotrichum Metake Sacc. Ann. Mycol. VI (1908) p. 557. — 7762 Acervulis epidermide cinerescente diu tectis, dein erumpentibus, longitrorsum parallele seriatis, elongatis, 0,5-1 mm. long., 0.2 mm. lat., nigricantibus, setis filiformibus, cuspidatis, parce septatis, fuligineis, 70-80 × 4-5, inter conidiophora confertiusculis; conidii soblongis, utrinque præcipue basi obtusis, 22 × 5,5-6, intus granulosis, hyalinis; conidiophoris paliformibus dense fasciculatis, apice obtusis, brunneolis, 14-18 × 4-5.

Hab. in culmis morientibus Arundinariæ japonicæ (Metake) in viridario Zava, Costa, Vittorio Treviso (Alex Trotter).

— A Coll. lineola mox dignoscendum; ab affiniore Coll. versicolore distinguitur setis apice acutis, conidiis utrinque obtusis, numquam medio angustatis majoribusque.

33. Colletotrichum sublineola P. Henn. in Kabat et Bubák Fungi 7763 imp. exs. n. 186 (1905). — Acervulis sparsis vel subgregariis, atris, 200-250 μ. longis; setulis oblongis, obtusis, fuscis, 30-50 × 7;

conidiis, fusoideis vel subclavatis, rectis vel curvulis, hyalinis, pluriguttulatis, 15-25 × 4-5.

Hab. ad fructus Sorighi vulgaris, Togo Africa (Kersting). - Affine C. lineolæ, differautem acervulis majoribus, setulis et conidiis minoribus.

34. Colletotrichum? pamparum Speg., Myc. Aegent. V, p. 406, in 7764 Anal. Mus. Nac. Buenos Aires XX (1910). — Maculis nullis sed foliis infectis totis pallescentibus; acervulis lenticularibus 200-300 µ. diam., primo epidermide tectis serius erumpentibus, nigris, margine setulis subflexuosulis, 100-200 × 4-5, continuis, atro-fuligineis, apice obtusis, fumosis pellucidisque dense fimbriatis; conidiis subnavicularibus utrinque subacutiuscule rotundatis, 20-22 × 5-6, sæpe nubilosis v. grosse 1-guttulatis, hyalinis.

Hab. ad folia arida Panici Urvilleani in sabulosis prope San Luis Argentina Amer. austr — An melins Vermicularia? 35. Colletotrichum antarcticum P. Henn., Deutsche Südpolar Exped. 7765 Bd. VIII (1906) Extr. p. 15, tab. II, fig. 23, a., b. — Acervulis innato-erumpentibus, oblonge discoideis, atris, interdum substriiformi-confluentibus, 150-220 × 80-100; margine setulosis, setulis erecte flexuosis, septatis, apice obtusis v. acutis, atrofuscis, 30-100 × 4-6; conidiis fusoideis, utrinque acutis, interdum obtusiusculis, falcatis v. subrectis, intus granulatis hyalinis, 15-30 × 3-4; conidiophoris varie longis, teretiusculis, hyalinis.

Hab. in foliis Poæ Cookii, in insulis Possessionis (WERTH). 36. Colletotrichum Janczewskii Namysl., Bull. Ac. Sc. Cracovie, (1906) 7766 p. 254, tab. XI, fig. 1-8. — Pustulis præcipue culmicolis sparsis, nigris, planis v. concavis, rotundatis, usque ad 80 µ. diam.; setulis nigrescentibus apice pallidioribus acutiusculis, unicellularibus, 70-150 ≠ 4, basi 8 µ. crassis; conidiophoris ovoideis, 8 × 6, adultis griseolis; conidiis fusoideis quandoque subfalcatis, unilocularibus 24.34 × 3-6, basi subapplanatis, grosse uniguttulatis.

Hab. in culmis et foliis Poæ trivialis, Cracovia.

37. Colletotrichum Vermicularia Sacc. et Dearn. in Sacc. Ann. Mycol. X (1912) p. 313. — Maculis lanceolato-linearibus, brunneis, am- 7767 phigenis; acervulis laxe gregariis mox erumpentibus, punctiformibus, vermiculariæformibus, vix 80-90 µ. diam., excipulo nullo, setulis dense fasciculatis sæpius incurvato-divergentibus, vix 1septatis, 80-90 μ. long., basi 4. μ. cr. fuligineis, apicem versus pallidioribus; conidiis fusoideis, leviter falcatis, utrinque acutiu-

sculis,  $20-22 \approx 4$ , intus granulosis hyalinis; conidiophoris brevissimis, hyalinis.

Hab. in foliis languidis Bromi ciliati var. leviglumis, London Ontario Amer. bor. (Dearness). — Affine Colletotricho lineolæ.

38. Colletotrichum cereale Manns in Selby et Manns, Ohio Agric. 7768 Exp. Stat. Bull. n. 203 (1909) p. 207, cum tab. et iconibus — — Acervulis innato-erumpentibus, ex hyphis mycelicis septatis brunneis 2-7 μ. diam. orientibus, suborbicularibus v. ovatis, modo minutissimis vix 30 μ. diam., paucisetosis, nunc usque ad 1 mm. long. plurisetosis; setis atro-brunneis v. nigris, rectiusculis, basi 6-8 μ. diam., sursum tenuatis, 60-120 μ. long., continuis v. 1-2-septatis; conidiis fusoideis, curvulis, hyalinis, 2-pluriguttulatis, 18-26 × 3-4; conidiophoris brevissimis, obtusis, 2-6 × 1-2.

Hab. in foliis vaginisque graminum variorum: Secale, Triticum, Avena, Hordeum, Dactylis, Phleum, Bromus, Poa, Ohio in Amer. boreali. — Plantæ infectæ valde vexantur.

PESTALOZZIELLA Sacc. et Ell. — Syll. III p. 737, X p. 470, XIV p. 475.

1. Pestalozziella ambigua v. Höhnel, Fragm. z. Mykol. Sitzb. K. 7769 Ak. d. Wiss. Wien, Bd. CXVI Abt. I (1907) p. 145. — Sordide carnea, rotundata v. elongata, 0,25-1 mm. longa, primum cortice immersa et clausa dein erumpenti-aperta; stratu peripherico 20-40 μ. cr. ex hyphis plectenchymaticis constituto, molli carneogelatinoso, hyalino, extus pallide rubescenti; conidiophoris hyalinis, simplicibus 20-30 μ. long., tenuibus; conidiis apicalibus elongato-cylindraceis, unilocularibus, tenuiter tunicatis, apice plerumque rotundatis rectisque, 28-48 × 12, utrinque 2-5 setulis curvulis, obtusis v. rectis, 20-40 × 1,5 præditis.

Hab. in caulibus siccis Artemisiæ vulgaris, Donaukanal prope Wien Austriæ.

### Sect. 2. Phæosporæ.

MELANCONIUM Link — Syll. III p. 749, X p. 471, XI p. 571, XIV p. 1018, XVI p. 1008, XVIII p. 469.

1. Melanconium Cydoniæ Schulz. z. Mügg. in Verh. zool. bot. Ges. 7770 Wien (1871) p. 1220, tab. 13, fig. 2. — Acervulis subcutaneis

dein erumpentibus, subglobosis v. late conoideis 400-500 μ. cr. intus sæpe pseudo-locellatis nigris; conidiis obovoideis, fuligineis, 18-24 μ. long., levibus; conidiophoris bacillaribus brevissimis.

Hab. in ramis corticatis Cydoniæ vulgaris in Hungaria.

2. Melanconium myriosporum Sacc. in Ann. Mycol. IX (1911) p. 254. 7771 - Acervulis subsparsis, epidermide velatis, vix prominulis, subcircularibus, 1/2-2/2 mm. diam., nigris, trans epidermidem visibilibus, cito erumpentibus et matricem nigro-inquinantibus; conidiis copiosissimis, globosis, minutis, 3 µ. diam., levibus, atro-fuligineis, pallide 1-guttulatis; conidiophoris acicularibus, parallelis, 15-18 × 2, fuligineis.

Hab. in caulibus Urticæ dioicæ morientibus in prov. Jaroslaw Rossiæ (Serebrianikow).

3. Melanconium Cernaiewi A. Potebnia, Ann. Mycol. VII (1910) p. 85, 7772 f. 37:7. — Strato sporigeno 1-2 mm. lato; conidiis 18-24 × 11-14, ellipsoideis v. piriformibus, obscure brunneis; conidiophoris erectis, brunneis,  $32-37 \times 3-5$ .

Hab. sub cortice ramulorum Quercus, Charkow Rossie. — Ob colorem peculiarem conidiorum species prædistincta dicitur.

4. Melanconium Castaneæ Salvi, Sopra alcuni Micromiceti osservati 7773 sul Castagno, Pisa Tip. Simoncini (1909). — Acervulis depressis irregularibus effusis, stratis peridermicis interjectis, hypostromate fuligineo donatis, sursum decoloratis, hyalinis, hyphis gracilibus constitutis; ramusculis conidiophoris apice plus minusve incrassatis; conidiis ovoideis v. oblongis, apice obtusis basi papillatis, 18-21 × 9-12 fuligineo-pellucidis. — Var. subcutaneum Salvi l. c. — Acervulis subcutaneis, dein emersis; conidiis angustioribus 4-6 μ. latis, 18 µ. longis, sæpe medio leniter constrictis.

Hab. species et varietas, in ramis emortuis Castaneæ sativæ prope Barga in agro Lucensi Italiæ.

5. Melanconium hysterioides P. Henn., Etat indép. du Congo, Mis-7774 sion Laurent, fasc. IV (1907) p. 363. — Acervulis sparsis v. gregariis, oblongis, innatis, epidermide tectis, dein rima longitudinaliter fissis, atris; conidiis oblongis, obtusis, fuscis, 8-12 > 3,5.

Hab. in culmis Graminace e cujusdam, Yabingo Congo Africæ trop.

BOTRYOCONIS Syd., Ann. Mycol. IV (1906) p. 344. (Etym. botrys, racemus, ob conidia botryoso-aggregata et conia, pulvis). — Acervuli primo subcutanei (ut videtur), demum erumpentes, pulvi-

nato-effusi. Conidia in capitula unita vel botryoso-aggregata, colorata, continua. - Drepanoconi Schreet. et P. Henn. videtur affinis.

1. Botryoconis Saccardoi Syd. l. c. p. 344. - Acervulis tumores 7775 irregulares 1/2-3 cm. latos sæpe profunde incisos efficientibus, totam tumorum superficiem pulvere ferrugineo æque obtegentibus; conidiis compluribus (6-10) botryoso-conjunctis, solitariis ovatooblongis, continuis, levibus, flavo-brunneolis, 10-16 × 5-7 μ., rectis vel subinde leniter curvulis.

Hab. in ramis Canellinhæ? (genus ignot. an Canellæ sp.?) Sao Leopoldo prov. Rio Grande do Sul Brasiliæ (J. RICK).

2. Botryoconis pallida Syd., Ann. Myc. V (1907) p. 340. — Acer- 7776 vulis fructus pulvere sordide et pallide ochraceo omnino obtegentibus; conidiis compluribus (2-6) botryoso-conjunctis, singulis ovatis subinde piriformibus, continuis, levibus, flavidis, 9-14 > 5-7.

Hab. in fructibus Ocoteæ puberulæ, pr. Sao Paulo Brasiliæ (A. Usteri). - A Botr. Saccardoi conidiis pallidioribus et facilius secedentibus dignoscitur.

#### Sect. 3. Hyalodidymæ

MARSONIA Fisch. — Syll. III p. 767, X p. 476, XI p. 573, XIV p. 1020, XVI p. 1010, XVIII p. 472.

1. Marsonia perforans Ell. et Ev. ap. Selby in Ohio Agric. Exper. 7777 Stat. Bull. 73 (1896) p. 224 et Bull. 111 (1899) p. 12. — Maculis minutis forma irregularibus 1-2 mm. diam., pallidis facile circumscisso-deciduis; acervulis 100-120 µ. diam. v. confluendo amplioribus; conidiis copiosis, clavato-cuneatis, hyalinis, tenuiter uniseptatis  $11-15 \approx 2,5-3$ , rarissime usque ad 20  $\mu$ . long.

Hab. in foliis Lactuce sative in frigidariis cultae, Ohio Amer. bor. (D. Selby). — Species valde perniciosa.

2. Marsonia Larreæ Speg., Myc. Argent. V, p. 408, in Anal. Mus. 7778 Nac. Buenos Aires XX (1910). — Maculis biformibus amphigenis determinatis, primo parvis suborbicularibus serius fere totum folium ambientibus; acervulis paucis sparsis, epiphyllis, erumpentibus, lenticularibus, 150-250 µ. diam., fuscescentibus; conidiis cylindraceis, utrinque rotundatis, 20-40 × 5-6, rectis v. flexuosis, medio 1-septatis non constrictis, ex hyalino leniter chlorinis.

Hab. ad folia viva Larreæ divaricatæ in montanis Potrerillos prope Mendoza Argertina Amer. austr.

3. Marsonia Mali P. Henn., Engl. Jahrb. XXXVII (1905) p. 164 7779 et Bot. Mag. Tokyo XXI (1907). — Maculis suborbicularibus interdum confluentibus, fuscidulis, atro-purpureo cingulatis; acervulis innatis, convexis, atris, 150-200 μ. diam.; conidiophoris bacillaribus, hyalinis, 5-8 × 1,5-2; conidiis clavatis v. subfusoideis, utrinque obtusis, pluriguttulatis, medio 1-septatis, constrictiusculis, hyalinis, 14-20 × 4,5-6.

Hab. in foliis Piri Mali, Rokugo, Tokyo Japoniæ (MIYAKE).

4. Marsonia Coronariæ Sacc. et Dearn. in Sacc. Ann. Mycol. X 7780 (1912) p. 313. — Maculis versiformibus, ex orbiculari angulosis, 1-2 mm. diam., interdum confluentibus, ex olivaceo brunneis, amphigenis; acervulis punctiformibus, 100-150 μ. diam., epidermide diu tectis, brunneis; conidiis oblongis, incurvatis, 1-septatis, constrictis, 16-18 × 5-6, apice rotundatis basi incurvo-acutatis, intus guttulato-granulosis, hyalinis, loculis senio facile secedentibus.

Hab. in foliis languidis Piri coronariæ, London Ontario Amer. bor. Fungillus diversis locis temporibusque observatus (Dearness).

5. Marsonia Potentillæ (Desm.) Fisch. — Syll. III p. 770. — Var. 7781 Helleri Peck, Bull. Torr. Bot. Cl. XXXIII (1906) p. 219. — Maculis parvis, inconspicuis, angulosis, pallidis; acervulis irregularibus, singulis v. 2-3 in quaque macula, nigris; conidiis oblongis 20-24 μ. long., 4 μ. cr., eguttulatis, loculo superiori abrupte oblique angustato.

Hab. in foliis vivis Drymocallis glandulosæ, prope Los Gatos California, Amer. bor. (Heller).

6. Marsonia? Tricyclæ Speg., Myc. Arg. V, p. 408 cum icon., in 7782 Anal. Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; acervulis amphigenis, erumpentibus, solitariis v. paucis laxe gregariis, planiusculis orbicularibus, 250-500 μ. diam., fuligineis; conidiis cylindraceis utrinque rotundatis flexuosis 25-40 × 5-6, medio 1-septatis, non constrictis, loculis minute 2-3-guttulatis primo hyalinis serius e chlorino rufescentibus.

Hab. ad folia viva Tricyclæ spinosæ in montuosis prope Cacheuta Mendoza Argentina Amer. austr.

7. Marsonia obtusata Maubl., Bull. Soc. Mycol. France XXII (1906) 7783 p. 69. — Maculis amphigenis, elevatis, in parte decolorata foliorum disseminatis, minimis, 1-4 mm. latis, primum ochraceis de-

mum atro-fuscis, linea elevata pallidiori cinctis; acervulis oculo nudo vix visibilibus, epidermide velatis, 1-3 in quaque macula; conidiis numerosis, ovoideis v. sæpius claviformibus, plerumque arcuatis, apice obtusis, prope basim 2-septatis, chlorino-hyalinis, granulatis, 19-22 × 6-9; conidiophoris brevibus.

Hab. in foliis adhuc vivis Daphnes Laureolæ prope Alençon Galliæ (Lemée). — A M. Daphnes (Desm. et Rob.) distincta.

8. Marsonia valpellinensis Trav. in Bull. n. 8 Société Flore Valdô-7784 taine, pag. 31 extr. (1912). — Maculis hypophyllis, fuligineo-purpurascentibus, initio minutis, subcircularibus, 1-3 mm. diam., dein confluentibus, immarginatis; acervulis paucis, subepidermico-erumpentibus, albidis, 150-250 μ. diam.; conidiis ellipsoideo-cuneatis dein hamato-incurvis vel falcatis, utrinque attenuato-rotundatis vel uno apice acutiusculis, granuloso-farctis, varie guttulatis, initio continuis dein infra medium septatis, hyalinis, 14-16 × 4-6; conidiophoris distinctis nullis visis.

Hab. in foliis languidis Salicis reticulatæ, ad glaciem æternam Faudery, Valpelline, Valle d'Aosta, Ital. bor. alt. 2500 m. — A ceteris speciebus salicicolis facile dignoscitur, ut videtur, ob colorem macularum et præcipue quia hypophylla, non epiphylla. Ad genus Marsonia ducenda est etiam Septoria didyma Fuck. et cum aliis speciebus comparanda.

9. Marsonia Matteiana Sacc., Ann. Mycol. VI (1908) p. 557, tab. 7785 XXIV, fig. 11. — Maculis arescendo cinerescentibus, versiformibus, amphigenis; acervulis hypophyllis dense gregariis, 100-130 μ. diam., ochraceo-fuscis, innato erumpentibus; conidiis cylindraceis, utrinque obtusis, eximie curvatis, medio 1-septatis, 14-15 × 2, non constrictis, hyalinis; conidiophoris... non visis.

Hab. in foliis languidis Quercus Roboris in Horto botanico Panormitano, (J. H. Mattei, cui dicata species). — Ad gen. Phleosporam nutat. A speciebus Marsoniæ et Phleosporæ quercicocolis omnino diversa.

ANAPHYSMENE Bubak, Ann. Mycol. IV (1906) p. 124 (Etym. anaphyo cresco et mene luna). — Acervuli rima longitudinali aperti; stroma tuberculiforme, infra pseudoparenchymaticum, supra e cellulis verticaliter seriatis efformatum, subepidermicum; conidiophora simplicia, hyalina; conidia plus v. minus incurvata, bilocularia, hyalina, acrogena.

Anaphysmene Heraclei (Lib.) Bub. l. c. cum icon. Huc ducenda est. 7786
 Labrella Heraclei (Lib.) Sacc. — Syll. III p. 648, X p. 421.

**SEPTOMYXA** Sacc. — Syll. III p. 766, X p. 476, XI p. 573, XIV p. 1020, XVI p. 1009, XVIII p. 473.

Septomyxa Tulasnei (Sacc.) v. Höhn. — Syll. XVIII, p. 474. — 7787
 \* S. Vogelii Sacc. Ann. Mycol. VII (1909) p. 436. — A typo differre videtur conidiis brevioribus, nempe 13-15 × 2,5-3, conidiophorisque obsoletis.

Hab. in ramis ramulisque languidis Aceris Ginnalæ, Tamsel Germaniæ (P. Vogel).

2. Septomyxa exulata (Jungh.) Sacc. Syll. III p. 767. — Var. indigena 7788 Bresadola in Strasser Verh. k. k. zool. bot. Ges. Wien Bd. LX (1910) p. 324. — A typo differt præcipue conidiis et conidiophoris majoribus; conidiis 1-septatis, ellipsoideo-fusoideis, hyalinis, 12-16-(-20) × 2.

Hab. in ramis Salicis sp. Sonntagberg Austria.

#### Sect. 4. Phæodidymæ

**DIDYMOSPORIUM** Nees -- Syll. III p. 763, X p. 475, XI p. 572, XIV p. 1020, XVI p. 1009.

1. Didymosporium argentinense Speg., Myc. Argent. V, p. 409, in 7789 Anal. Mus. Nac. Buenos Aires XX (1910). — Matrice tota sordide fuscescente v. obsolete pallescente; acervulis dense gregariis sæpe subcircinantibus erumpemtibus, orbicularibus, lenticularibus, 90-120 μ. diam., atris; conidiophoris conoideis v. sublageniformibus dense constipatis, 5.6 × 2, hyalinis, monosporis; conidiis ellipsoideo didymis, utrinque plus minusve rotundatis, 20-22 × 9-10, ad medium non v. modice constrictis, loculis grosse 1-guttulatis æqualibus subopace fuligineis.

Hab. ad caules dejectos putrescentes Fœniculi piperiti in hortis Santa Catalina prope Buenos Aires Argentina in America australi.

2. Didymosporium australe Sacc. et Trott. in Ann. Mycol. X (1912) 7790 p. 514. — Maculis amphigenis pallescentibus irregulariter rotundato-sinuosis elongatisque subdeterminatis, 1-2 cm. long., extus obscurioribus; acervulis sæpius hypophyllis, gregariis, innato-erumpentibus, minutis, plerumque confluendo elongato-subseriatis,

nigris; conidiis subovoideis v. subellipsoideis utrinque fortiter rotundatis, medio septato-constrictulis, obsolete bi-guttulatis, brunneo-fuligineis,  $6-10 \approx 4,5-6$ .

Hab. in foliis languidis v. emortuis Phænicis dactyliferæ Gargaresc prope Tripoli Africæ bor. (A. Trotter). — Affine Did. striolæ a quo imprimis differt forma conidiorum utrinque rotundata non subcuneata.

- PHÆOMARSONIA Speg., Anal. Mus. Nac. Buenos Aires XVII (1908) p. 138 (Etym. phaios obscurus et Marsonia). Omnibus notis cum Marsonia conveniens; conidiis æque didymis sed fuligineis disctinctum.
- 1. Phæomarsonia Yerbæ Speg. l. c. p. 138. Maculis amphigenis 7791 orbicularibus calloso-elevatulis, eximie definitis, superne per ætatem erosulo-denudatis subcinerescentibus; acervulis in centro macularum 3-7 gregariis, per epidermidem disruptam conidia protrudentibus, conoideis 80-100 μ. diam., pallide olivaceis, ægre perspicuis; conidiis ellipsoideo-subobovatis, 1-septato-constrictulis, utrinque obtusis, 12 × 5-6, loculis æquilongis non v. grosse uniguttulatis, fuligineis.

Hab. ad folia languida Ilicis paraguariensis in silvis circa Campo Grande Misiones Argentina.

### Sect. 5. Hyalophragmiæ

**SEPTOGLŒUM** Sacc. — Syll. III p. 801, X p. 496, XI p. 581, XIV p. 1020, XVI p. 1009, XVIII p. 473.

1. Septoglœum erythræum Sacc. Ann. Mycol. VIII (1910) p. 339. — 7792 Maculis laxe gregariis, amphigenis, minutis, subcircularibus, 0,5-1 mm. diam., atris; acervulis in centro maculæ solitariis, initio epidermide velatis, albis, 0,3 mm. diam.; conidiis fusoideis v. teretifusoideis, inæqualibus, sæpe curvulis, utrinque obtusulis, 16-22 × 2,7-3, raro 11-12 × 4, tri- (raro bi-) septatis, non constrictis, hyalinis; conidiophoris fasciculatis, filiformibus, 11-14 × 2,5, sæpe tortuosis, hyalinis, coacervatis chlorinis.

Hab. in foliis languidis Bosciæ angustifoliæ, loco Acrur (Acchelé-Guzai), alt. 1870 m. in Erythræa (Hadr. Fiori) Africa.

— Ad gen. Phleosporam nutat. Conidia in massulas albidas sæpe eructata.

2. Septoglœum Limoniæ Petch, Ann. R. Bot. Gard. Peradeniya IV 7798 Pt. V (1909) p. 306. — Pustulis minutis, gregariis, nigris, in maculis aridis pallide brunneis hypophyllis insidentibus; conidiis leniter clavatis, rectis v. curvis, 4-5-septatis, hyalinis, apice obtusis, 36-45 × 3-4.

Hab. in foliis Limoniæ crenulatæ, Dikwella in ins. Ceylon.
3. Septoglœum linicola Speg., Myc. Argent. V, p. 409, in Anal. 7794
Mus. Nac. Buenos Aires XX (1910). — Maculis diffusis pallescentibus v. lutescentibus; acervulis plus minusve laxe gregariis

scentibus v. lutescentibus; acervulis plus minusve laxe gregariis globoso-depressis, 50-60 µ diam., per ætatem erumpentibus, pseudopycnidio tenuissimo fuxidulo tectis, fusco-succineis; conidiis cylindraceis utrinque rotundatis 12-28 × 1,5-3, rectis v. curvulis, primo continuis nubilosis, dein uniseptatis, postremo 3-septatis, non constrictis, semper hyalinis.

Hab. ad caules nec non ad folia viva Lini usitatissimi in cultis Entre Rios Argentina Amer. austr. — An status metageneticus Phlyctænæ? linicola Speg.?

4. Septogleum hirudinisporum Spegazz. Fungi Paulist., Rev. Mus. La 7795 Plata t. XV p. 42 (1908). — Maculis orbicularibus amphigenis, 1-5 mm. diam., superne callosis rimulosis cinerescentibus, areola atrocyanescente cinctis, inferne sanguineis subindeterminatis; acervulis epiphyllis parvis fuscis, primo epidermide tectis dein denudatis, sublenticularibus 50-200 μ. diam., fuscidulis; conidiis apice obtusis rotundatis postice attenuato-acutatis hirudiniformibus 7-9-pseudo-septatis, 20-35 × 5-6, polyblastis, hyalinis.

Hab. ad folia languida Eugeniæ cujusdam, Ipiranga Cambucy, Brasilia (USTERI).

5. Septoglœum Lathyri Lind, Ann. Mycol. V (1907) p. 277. — Mar 7796 culis amphigenis, magnis, confluentibus, rotundatis, non marginatis, pallide rubidis; acervulis subepiphyllis, sparsis, flavidis, pallidis, excipulo carentibus; conidiophoris cylindraceis, simplicibus, subparallelis; conidiis subcylindraceis, rectis v. curvulis, triseptatis, constrictis, utrinque parum angustatis, obtusis, tenuiter tunicatis, hyalinis v. nubilosis, 50-60 × 3-5.

Hab. in foliis vivis Lathyri silvestris, prope Kopenhagen, Dania (M. L. Mortensen).

6. Septogleum aureum Syd. Ann. Mycol. VIII (1910) p. 41. — Acer-7797 vulis innato-erumpentibus, sparsis vel aggregatis, rotundatis vel ellipticis, epidermidis laciniis cinctis, tandem pulverulentis et applanatis, <sup>1</sup>/<sub>4</sub>-<sup>1</sup>/<sub>2</sub> mm. diam., amœne aureis; conidiis cylindraceo-

fusiformibus, curvulis, apice obtusis, basi acutatis, hyalinis, 4-8-septatis, 70-105 × 4-5; conidiophoris papilliformibus.

Hab. in ramis Hopeæ acuminatæ, Mount Mariveles, prov. Bataan, Luzon ins. Philippin (E. D. MERRILL).

7. Septoglœum Anisophylleæ P. Henn., in Fl. du Bas- et Moy. Con- 7798 go, Ann. Mus. du Congo v. II, fasc. II, (1907) p. 102. — Maculis epiphyllis, gregariis, angulato-rotundatis confluentibusque, sanguineis; acervulis sparsis, lenticularibus, epidermide dein fissa tectis; conidiophoris filiformibus, hyalinis, 30-40 × 2,5-3, conidiis cylindraceis, curvatis, utrinque obtusis hyalinis, 1-3 septatis, 40-70 × 8-12.

Hab. in foliis Anisophylleæ, Dembo Congo Africa (VANDERYST).

8. Septogleum Elasticæ Koord, Botan. Untersuch Java (1907) p. 220, 7799 fig. 35. — Maculis expallescentibus subcircularibus; acervulis epiphyllis biogenis, numerosissimis, aggregatis, irregulariter (haud concetrice) dispositis, subepidermicis, erumpentibus, griseo-albescentibus, 100-150 μ. diam.; conidiis cylindraceo-fusiformibus, falcatis, initio continuis, dein 1-3-septatis, utrinque acutis, hyalinis, 20-32 × 3-4 plerumque, 30 × 3,5; conidiophoris cylindraceis indivisis, apice rotundatis, continuis, hyalinis, 10-12 × 3-3,5.

Hab. in foliis vivis Fici elasticæ in Purworedjo prov. Kedu Java (Koorders).

9. Septoglœum sulphureum Syd., Ann. Myc. VIII (1910) p. 493, Myc. 7800 Germ. n. 934. — Acervulis sparsis, innato-erumpentibus, 1 mm. diam., rotundatis, sulphureis, peridermii laciniis cinctis; conidiis falcatis, utrinque acutis, 3-5-septatis, hyalinis v. flavo-hyalinis, 50-70 ≈ 5.

Hab. in ramis Abietis pectinatæ in silva prope Schiessrotried regionis montis Hohneck Vogesorum, Germania.

10. Septogleum concentricum Syd., Engler's Bot. Jahrb. 45 Bd. 7801 (1910) p. 265. — Acervulis amphigenis, in greges rotundatos v. ellipticos usque ad 1,5 cm. longos concentrice dispositis, 300 400 × 150-200, in sicco atris, pariete proprio carentibus sed contextu matricis mutato et atrato insidentibus, in sicco planis, in udo massam conidiorum griseam expellentibus; conidiis elliptico-oblongis, v. oblongis, primo continuis dein 1-septatis, tandem 2-3-septatis, utrinque rotundatis, hyalinis, 18-23 × 4-7; conidiophoris 12-20 μ. 1.

Hab. in foliis Sansevieriæ guineensis, Keren Erythraea Africa trop. (Steuder).

PESTALOZZINA Sacc. — Syll. III p. 800, XI p. 580, XVIII p. 475.

1. Pestalozzina Cordylines Speg., Myc. Argent. V, p. 372 cum icon., 7802 in Anal. Mus. Nac. Buenos Aires XX (1910). — Maculis linearibus, determinatis, arescentibus, fusco-cinerescentibus, areola purpurascenti limitatis; pycnidiis amphigenis innatis, atris, sublenticularibus 150-200 μ. diam., obsolete lateque ostiolatis, contextu indistincto opaco; conidiis e fusoideo subclavulatis, plerumque 4-septatis (raro 3), deorsum attenuatis sursum subrotundatis, 20-24 × 6, hyalinis, loculis extimis minoribus, basi breviter pedicellatis (pedicello 5-10 × 1) superne abrupte triarisitatis, aristis horizontalibus 10-15 × 1.

Hab. ad folia languida Cordylines dracænoidis in hortis La Plata Argentina Amer. austr.

## Sect. 6. Phæophragmiæ

**STILBOSPORA** Pers. — Syll. III p. 771, X p. 480, XI p. 575, XVIII p. 475.

1. Stilbospora nigra H. Karst., Botan. Untersuch. I (1865) p. 66, tab. 7, 7803 f. 1 (absque diagnosi). — Syll. XX p. 903 (sub S. atra). — Acervulis foliicolis. innato-erumpentibus, sparsis, prominulis, atris; conidiis concoloribus, ellipsoideo-oblongis, utrinque rotundatis, plerumque triseptatis, raro biseptatis, non constrictis, conidiophoro bacillari brevissimo suffultis.

Hab. in foliis Pini sp. in Germania. — Folia affecta arescunt et vitiantur.

2. Stilbospora Cacao Massee, Kew. Bull. n. 7 (1906) p. 257. — 7804 Stromate subcutaneo-erumpenti, corticola, sparso, conico-truncato, nigro; conidiis subcylindraceis, olivaceis, 1-demum 3-septatis, ad septum subconstrictis, 19-24 × 7-9; conidiophoris simplicibus, hyalinis, obverse clavulatis, 40-50 × 1,5-2.

Hab. in ramis Theobromæ Cacao, Trinidad Indiæ occ. (HART).

Stilbospora Cordæana v. Höhn, Sitzb. k. Ak. d. Wiss. Wien 7805
 CXV, Abt. I (1906) p. 36. — Ita vocandum ? Didymosporium macrospermum Cda. — Syll. III p. 765.

CORYNEUM Nees — Syll. III p. 774, X p. 481, XI p. 576, XIV p. 1022, XVI p. 1012, XVIII p. 476.

Syll. fung. XXII (VI-1918)

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1. Coryneum Berkeleyi Cooke, Fung. Pests (1906) p. 197, tab. 18, 7806 fig. 43. — Sarcostroma Berkeleyi Cooke, Q. Journ. M. S. 1871, pl. 1. — Ita dicatur Hendersonia foliicola (Berk.) Fuck. — Syll. III p. 430 — nam teste Cooke pycnidium deest. Conidia plerumque 3 raro 5-septata, 30 × 8.

2. Coryneum Vogelianum Saccardo, Not. Myc. VI, Ann. Myc. v. III 7807 (1905) p. 514. — Acervulis longitrorsum dispositis, sublinearibus, 1 mm. longis et confluendo 3-5 mm. long., vix 0,5 mm. lat., tectis, mox rimose erumpentibus, nigris; conidiis ellipsoideo-oblongis, 2-septatis, utrinque obtusulis, 16-20 × 8, ad septa non constrictis, subinde vero (ex exsiccatione) ad medios loculos leviter constrictis, dilute fuligineis, loculo inferiore dilutiore; conidiophoris bacillaribus, subhyalinis, 25-30 × 2-2,5, utrinque obtusis, fasciculatis.

Hab. ad ramulos emortuos corticatos Aceris campestris, Tamsel prov. Brandenburg, Germania (P. Vogel). — A Cor. Negundinis imprimis conidiophoris simplicibus dignoscenda species.

3. Coryneum psilosporioides (Schulz.) Sacc. et Trav. - Syll. XIX p. 306, 7808 (Clasterosp.) Apotemnoum psilosporioides Schulzer v. Mügg. Verh. zool. bot. Ges. Wien (1871) p. 1238, tab. 13, fig. 17. — Acervulis subcutaneo-erumpentibus, pulvinatis, depressis, 400-500 μ. diam.; conidiis fusoideis, rectis, curvulisve, 3-septatis non constrictis, utrinque obtusulis, 18-20 × 5, umbrino-brunneis, pedicello filiformi hyalino triplo-quadruplove longioribus.

Hab. in ramis corticatis Cydoniæ vulgaris in Hungaria.

4. Coryneum Missionum Speg., Myc. Argent. V, p. 410, in Anal. 7809 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; acervulis hypophyllis sparsis v. laxe gregariis orbicularibus 150-200 μ. diam., planiusculis, innato-erumpentibus, atris; conidiis dense constipatis e fusoideo cylindraceis, rectis v. arcuatis, utrinque rotundatis, 25-30 × 7-8, sæpius 5-septatis, olivaceis, cellulis extimis pallidioribus atque longioribus, ad septa non v. vix constrictis, e cellulis proligeris ovoideis 8-10 × 5, fumosis, dense constipatis immediate oriundis.

Hab. ad folia viva Pithecolobii contortisiliqui in silvis prope Puerto Leon Misiones, Argentina Amer. austr.

5. Coryneum Cassiopes Rostr., Rep. Second Norweg. arctic. Exped. 7810 Fram., (1906) p. 9. — Acervulis sparsis, atris, applanatis, epiphyllis; conidiis clavatis, v. piriformibus, 3-septatis, fuscis, loculo infimo hyalino, 20-21 × 7-8.

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Hab. in foliis Cassiopes tetragonæ, E. Bedford Pim Island Norvegiæ.

6. Coryneum perniciosum Briosi et Farneti, Atti R. Ist. bot. Pavia 7811 ser. II, v. XIII (1909) p. 296; tab. VII, v. XIV et p. 49. — Acervulis pulvinatis erumpentibus, atris; conidiis clavatis v. clavato-fusoideis, fuscis, 40-50 × 13-15; conidiophoris filiformibus, fasciculatis, paraphysibus intermixtis conidia superantibus.

Hab. in cortice Castaneæ parasiticum, morbum «Moria dei Castagni» vel «Male dell'inchiostro» provocans in Etruria, Liguria, Pedemontio Italiæ. — Socia adsunt Fusicoccum perniciosum et Melanconis perniciosa, de quibus cfr. suo loco.

### TOXOSPORIUM Vuill. - Syll. XIV p. 1030.

Toxosporium camptospermum (Peck) Maubl., Bull. Soc. Myc. 7812
 Fr. XXIII (1907) p. 173. — Ita vocanda Pestalozzia camptosperma Peck — Syll. X p. 495 = Toxosp. abietinum Vuill., — Syll. XIV p. 1030 = Coryneum bicorne Rostr. — Syll. XVI p. 1013.

PESTALOZZIA De Not. — Syll. III p. 784, X p. 485, XI p. 578, XIV p. 1024, XVI p. 1013, XVIII p. 479.

Pestalozzia Canangæ Koord., Botan. Untersuch. Java (1907) p. 224. 7813
 — Acervulis atris erumpentibus, amphigenis, præsertim epiphyllis, 80–150 μ. diam.; conidiis fusiformibus 4-septatis, loculis 3 interioribus fuscis, extimis hyalinis, 20-25 × 6-9, apice 2-3 aristatis; setis 6-15 μ. longis, hyalinis.

Hab. in foliis vivis Canangæ odoratæ in Purworedjo prov. Kedu Java (Koorders).

2. Pestalozzia valdiviana Speg., Fungi Chilenses (1910) p. 178. — 7814 Maculis suborbicularibus, amphigenis, determinatis, 3-15 mm. diam., inferne tabacinis, superne sordide cinerescentibus, linea angustissima callosa prominula limitatis; acervulis hypodermicis epiphyllis circinatim marginantibus 120-150 μ. diam., conidiis clavatulis 5-septatis non v. vix constrictis, 20 × 8, loculis 4 internis olivaceis, mediano supero crassiore saturatioreque, extimis conoideis minutis hyalinis, supremo longiusculo 3-setuloso, setulis 10 × 1, infimo breviter pedicellato 5 × 1.

Hab. in foliis vivis Drymidis Winteri prope Ciudad de Valdivia, Chile Amer. austr.

3. Pestalozzia Clusiæ Griff. et Maubl., Bull. Soc. Myc. Fr. XXV 7815 (1909) p. 239, tab. XXVII, fig. 1-3. — Maculis amplis, versifor-

mibus, amphigenis, albidis, linea elevata ochracea marginatis; acervulis numerosis, epiphyllis, punctiformibus, subcutaneo-erumpentibus, 200-300  $\mu$ . diam., oblongis rotundatisve, nigris; conidiis oblongo-ovoideis, sæpe gibbis et inæquilateralibus, 4-septatis, 20-25  $\times$  8-10, loculis 3 mediis fuscis, extimis hyalinis; setulis terminalibus 3, raro 4, divergentibus, flexuosis, 20-30  $\mu$ . long.; pedicello filiformi, hyalino, 5  $\mu$ . longo.

Hab. in foliis vivis Clusiæ in calidariis pr. Parisios Galliæ.

4. Pestalozzia pampeana Speg., Myc. Argent. V, p. 412, in Anal. 7816 Mus. Nac. Buenos Aires XX (1910). — Maculis arescentibus determinatis; acervulis sparsis cortice innatis, erumpentibus, sublenticularibus, 200-250 μ. diam., atro-olivaceis; conidiis ellipsoideis v. subfusoideis, 3-septatis, ad septum medium fere tantum constrictis, 20 × 8-9, loculis 2 internis olivaceis, extimis hyalinis, setulis apicalibus 3 longiusculis, 20 × 1, divaricatis, pedicello basali flexuosulo 35-40 × 1.

Hab. ad ramulos vivos Discariæ americanæ in pratis prope Córdoba Argentina Amer. austr.

5. Pestalozzia Trevoæ Speg., Fungi Chilenses (1910) pag. 178. — 7817 Acervulis sublenticularibus, 150-300 μ. diam., primo cortice tectis eaque secedente denudatis atque superficialibus, atris; conidiis subcylindraceis quandoque leniter subfusoideis v. subclavulatis, 4-septato-constrictulis, 25-30 × 8-10, loculis 3 internis fuligineis subopacis, 2 extimis breviter conoideis hyalinis, supero longe 2-3-ciliato (ciliis 15-20 × 1) infero in pedicellum, 30-50 × 1 hyalinum producto.

Hab. copiose in ramulis emortuis subputrescentibus Trevoæ trinervis in collibus San Bernardo prope Santiago Chile America austr.

6. Pestalozzia pycnoides Alm. et Cam. Rev. Agron. Port. IV (1906) 7818 p. 60, tab. I, fig. 1-3; Bol. Soc. Brot. XXV (1908-1909), Extr. p. 61. — Acervulis ad instar pycnidii epiphyllis, solitariis, primum epidermide tectis, demum erumpentibus, subconoideis, 200-250 μ. diam.; conidiis fusoideis 4-septatis, ad septa constrictis, tribus loculis mediis castaneo-fuligineis, ceteris hyalinis, 18-25 × 7-8, rostellis ternis achrois, 10-14 μ. long.

Hab. in foliis Lauri nobilis in horto Instituti Agronom. Lisboa Lusitania. — Socia adest Phyllosticta laurina Alm.

Pestalozzia dichæta Speg., Myc. Argent. V, p. 411, in Anal. Mus. 7819
 Nac. Buenos Aires XX (1910). — Maculis nullis; acervulis spar-

sis amphigenis, subglobosis, erumpentibus, nigris, 200-250  $\mu$ . diam.; conidiis subfusoideis 4-septatis, utrinque acutiusculis 20-22  $\approx$  6, ad septa leniter constrictis, loculis 3 internis obscure olivaceis ceteris hyalinis, supremo setulis 2 parum divaricatis, 10-15  $\approx$  1, prædito, infimo in pedicellum brevem et gracilem, 5  $\approx$  1,5, attenuato.

Hab. ad folia coacervata putrescentia Lithreæ molleoidis Bella Vista Corrientes Argentina Amer. austr. — P. funereæ affinis sed conidiis apice semper et tantum bisetigeris distincta.

8. Pestalozzia Torrendia Alm. et Cam in Rev. Agron. Portug. III 7820 (1905) p. 254 t. XV, f. 4-5; Bol. Soc. Brot. XXV (1908–1909) Extr. p. 61. — Acervulis amphigenis, parvis, conicis, numerosis, atrobrunneis, primum tectis, demum erumpentibus; conidiis fusoideis, triseptatis, 27-30 × 10-11; loculis duobus intermediis majoribus, cuboideis, brunneis, ceteris achrois, utrinque acutissimis; rostellis plerumque 3, raro 2, hyalinis, simplicibus, 30-40 × 1; pedicello hyalino, 10-13 × 2-2,5, facile caduco.

Hab. in phyllodiis Acaciæ v. Mimosæsp. prope Castello Branco Lusitania (C. Torrend).

9. Pestalozzia sonsensis P. Henn., in Fl. du Bas et Moy. Congo, in 7821 Ann. Mus. du Congo, v. II, fasc. III, (1908) p. 229. — Maculis effusis, fuscis; acervulis minutis amphigenis, sparse gregariis, subcutaneis, atris; conidiis fusoideis 18-22 μ. longis, 4-septatis, cellulis mediis (3) fusco-atris, vix constrictis, 15-18 × 6-7, cellulis extimis conoideis hyalinis c. 4 μ. longis, vertice 3 setulis hyalinis 18-22 μ. longis, stipite filiformi hyalino, 18 × 1.

Hab. in foliis Ceratoniæ sp.? Sonso Congo Africa (VAN-DERYST).

10. Pestalozzia congensis P. Henn., in Fl. du Bas- et Moy. Congo, 7822 in Ann. Mus. du Congo, v. II, fasc. III (1908) p. 229. — Maculis effusis fuscidulis; acervulis epiphyllis, sparse gregariis, subcutaneis, discoideis, atris, epidermide fissa velatis, dein atro-effusis; conidiis fusoideis, 15-22 μ. longis, 4-septatis, cellulis mediis (3) atro-brunneis, constrictis, 15-18 × 6-10, cellula superiori papilliformi, hyalina, 2-3 μ., setulis (3) filiformibus, hyalinis, c. 6-10 μ. cellula inferiori conoidea hyalina 3-4 μ., stipite brevi, hyalino.

Hab. in foliis Parinarii sp. Kisantu Congo Africa (VANDERYST).

11. Pestalozzia Byrsonimæ v. Höhnel, Ergebn. Bot. Exped. Südbras. 7828
1901, Denk. K. Ak. d. Wiss. Bd. LXXXIII (1907) Extr. p. 36.
Maculis epiphyllis, numerosis, æque distributis, rotundatis, acu-

te limitatis, obscure brunneis, margine brunneo-nigris, 2-2,5 mm. latis; acervulis paucis 100  $\mu$ . cir. latis; conidiis ex ovoideo fusoideis, 20-24  $\approx$  8-10, quinquelocularibus, loculis tribus mediis obscure brunneis, cæteris hyalinis; loculo basilari breviter conoideo, breviter hyalino-pedicellato, loculo apicali brevi, plerumque tribus ciliis irregulariter curvatis, 20-25  $\approx$  1-1,5, hyalinis.

Hab in foliis Byrsonimæ verbascifoliæ, prope Sao Bernardo Sao Paulo Brasiliæ, Amer. austr.

12. Pestalozzia Evansii P. Henn, Engl. Bot. Jarhb. XLI (1908) 7824 p. 273. — Maculis amphigenis gregariis, rotundato-angulatis, atroviolaceis, acervulis erumpentibus atris; conidiis fusoideo-clavatis c. 15-28 μ. longis, 3-septatis, cellulis mediis 2, ovoideis, medio 1-septatis vix constrictis, atro-violaceis, c. 15-26 × 9-12, cellula superiori hyalina papilliformi c. 2 μ., setulis 4 filiformibus, flexuosis, usque ad 30 μ. longis.

Hab. in foliis Eugeniæ cordatæ Hochst., Baiberton, Transvaal 1906 (Evans).

13. Pestalozzia Menezesiana Bres. et Torr., Broteria, Ser. Bot. t. VIII 7825 (1909) p. 142. — Amphigena, maculis nullis; acervulis gregariis v. sparsis, punctiformibus, nigris; conidiis subfusoideis, 4-septatis, loculis extimis hyalinis, interioribus fuligineis, 2 superioribus crassioribus, 25-27 ≈ 8-9, apice setulis tribus 28-30 ≈ 1, basi pediculo 3-5 ≈ 2.

Hab. ad folia Vitis viniferæ, Porto Santo in Ins. Madeira (А. DE NOBONHA).

14. Pestalozzia Mágocsyi Bubák, Beitr. Pilzfl. Ung. in Növénytani 7826 Közlemények (1907) Heft 4 Extr. p. 38. — Cæspitulis primum subepidermicis dein nudis, e rotundato elongatis, 200-300 μ. long., nigris, pulveraceis; conidiis ellipsoideis, fusoideis v. clavatis, quandoque curvulis, basi fortiter angustatis, 20-26 × 8-9, quinquelocularibus, loculis duobus mediis superioribus brunneis, tertio e flavido flavo-brunneo sæpe angustiore, loculis terminalibus parvis, conoideis, hyalinis, summo setulis 4-5 fortiter divergentibus usque ad 40, raro usque ad 50 μ. longis, hyalinis, curvulis prædito; stipite brevi, cylindraceo, 10-15 μ. longo, hyalino

Hab. in caulibus emortuis Seseli glauci, Dunakeszi-Alag prope Budapest Hungariæ.

15. Pestalozzia Comptospermæ P. Henn., in Voeltzkow Reise Ostafrika 7827 III (1908) p. 32. — Maculis effusis, pallidis, exaridis; acervulis sparsis epiphyllis, lenticularibus, atris; conidiis, fusoideis 4-septa-

tis, cellulis mediis fuscis,  $13-15 \times 5-6$ , cellulis externis hyalinis papilliformibus, setulis 3 c.  $10-14~\mu$ . longis, stipite hyalino filiformi, c.  $10~\mu$ . longo.

Hab. in foliis Comptospermæ nigrescentis, Nossi-Bé Madagascar (J. M. HILDEBRANDT).

16. Pestalozzia Mangiferæ P. Henn., in Fl. du Bas- et Moy. Congo, 7828 Ann. Mus. du Congo, v. II, fasc. II, (1907) p. 102. — Maculis rotundato-angulatis amphigenis, gregariis, cinereo-fuscis, exaridis; acervulis hypophyllo-erumpentibus, lenticularibus, effusis, atris; conidiis clavato-oblongis, 20-24 × 4-6, 4-septatis, cellulis mediis 3 atris 14-18 μ., cellulis extimis hyalinis conoideis, 4-5 μ., apice setulis ternis, hyalinis, 15-18 μ.; stipite filiformi c. 10 × 1, hyalino.

Hab. in foliis Mangiferæ indicæ, Kisantu Congo Africa (VANDERYST).

17. Pestalozzia Coffeæ Zimm., Pathol. Koffee (1904) p. 74, fig. 45. 7829 — Acervulis subcutaneo-erumpentibus, nigris; conidiis fusoideo-oblongis, 5-cellularibus, 25 × 5-6, cellulis ternis interioribus fuligineis cum tertia inf. paullo pallidiore, ad septa leviter constrictis cellula suprema minima hyalina setulas 2 filiformes, 15-20 × 1, hyalinas divaricatas gerente, ima conoidea, minuta in stipitellum 4 μ. longum tenuata.

Hab. in foliis Coffee arabice var. culte in ins. Java.

18. Pestalozzia Elæagni Alm. et Cam. Contrib. Myc. Lus. Cent. III-7830 V, Bol. Soc. Brot. XXV (1908-1909) Extr. p. 59. — Acervulis epiphyllis, maculas fusco-cinctas foliorum cinerescentes occupantibus hemisphærico-lenticularibus, minutis, atris, primo epidermide tectis, demum liberis; conidiis subfusiformibus, rectis, utrinque acutatis, quinquelocularibus, cellulis extimis hyalinis, ceteris brunneis, vertice quatuor rostellis obsoletis, achrois, usque ad 15 μ. long., ad septa leniter constrictis, 20-22 × 7-8.

Hab. in foliis Elæagni sp. in horto bot. Coimbra (A. Moller).

19. Pestalozzia Nicolai Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) 7831 p. 485, tab. XV, fig. 14-15. — Acervulis sparsis, subcorticolis, primum globoso-clausis, depressis, dein erumpentibus, v. initio pulvinatis, 180-270 μ. latis, nigris; conidiis elongato-ellipsoideis, 18-26,5 × 6,5-8,5, trilocularibus, loculo inferiori parvo, trigono, hyalino, duobus superioribus obscure castaneo-brunneis ultimo apice setulis 5 (raro 4) 20-27 × 1, hyalinis, subrectis prædito; conidiophoris filiformibus, usque ad 15 × 2, hyalinis.

Hab in caulibus siccis Salviæ officinalis, prope Rijeka

Montenegro.

20. Pestalozzia Bignoniæ Da Camara, Bol. Soc. Broteriana XXV 7832 (1910) Extr. p. 21. — Acervulis lenticulari-subsphæroideis, atris, minutis, sparsis, immersis, primo tectis demumque epidermide fissa cinctis; conidiis fusiformibus, curvulis, 5-septatis, haud constrictis, loculis quatuor intermediis brunneis, duobus extimis conoideis, achrois parvulisque, 27-32 × 10, pedicellatis, vertice arista una, hyalina, filiformi, 5-8 × 1, stipite funiculiformi, 12-20 × 2.

Hab. in ramulis Bignoniæ jasminifoliæ, in horto bota-

nico Coimbra Lusitaniæ (A. MOLLER).

21. Pestalozzia Conceptionis Speg., Fungi Chilenses (1910) pag 177 7833 cum icon. — Maculis nullis; acervulis lenticularibus, 100-120  $\mu$ . diam., atris, seriatis; conidiis ellipsoideis, 4-septatis, ad septa constrictulis 16-20  $\approx$  8-9, loculis 3 internis majusculis, centrali breviore, fuligineis, 2 extimis pusillis hyalinis, supero setulis 3 divaricatis, 20-25  $\approx$  0,75, conidio longioribus, infimo pedicello 10-15  $\approx$  1, conidio breviore donatis.

Hab. in caulibus siccis subputrescentibus Asteriscii chilensis, Cerro Caracol de Concepcion Chile Amer. austr.

22. Pestalozzia Chrysanthemi Hollós, Ann. Mus. Nat. Hung. IV 7834 (1906) p. 369, tab. IX, fig. 27. — Acervulis epidermide tectis, erumpentibus, depresso-globosis, nigris c. 0,5 mm. diam.; conidiis oblongo-ellipsoideis, initio hyalinis, continuis, dein 3-septatis, ad septula non constrictis, 16-22 × 7-9; cellulis duobus mediis magnis, flavidulis, dein fuscis, crasse 1-guttatis, extimis parvulis, achrois, deciduis, basi in pedicellum longissimum hyalinum, productis vertice ciliis 2-5 hyalinis, divergentibus, inæqualibus ornatis.

Hab. in caulibus emortuis Chrysanthemi indici, Kecskemét Hungariæ.

23. Pestalozzia sessilis Sacc., in Ann. Mycol. VIII (1910) p. 339. 7885 — Maculis (propriis?) vagis, epiphyllis, alutaceo-pallidis, anguste nigro-marginatis; acervulis punctiformibus, disciformibus, subcutaneis dein erumpentibus, nigris, 120-130 μ. diam.; conidiis sessilibus, elliptico-oblongis, 17-19 × 7, quadriseptatis, non v. vix constrictis, loculis tribus inter. fuligineis, extimis hyalinis, imo acutiore, part. color. 13-16 μ. longa; setulis apicalibus tribus, divergentibus, brevibus, hyalinis 6 × 1.

Hab. in foliis languidis v. emortuis Diospyri mespiliformis, Mareb a Chenafenà, alt. 1550 m. (Acehlè-Guzai) in Erythræa (HADR. FIORI). — Affinis *Pest. brevisetæ*, sed conidiis sessilibus, et brevioribus distinguenda.

24. Pestalozzia subsessilis Speg., Myc. Argent. V, p 413, in Anal. 7836 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis orbicularibus, 2-6 mm. diam., determinatis, albicantibus; acervulis paucis innato-erumpentibus, sublenticularibus, minutis, atris; conidiis subfusoideis v. subclavulatis, 20-30 × 8-11, fere semper 5-rarius 6-locularibus, loculis, intimis olivaceis cæteris hyalinis, supremo longiuscule 3-setigero, setulis valde divaricatis, 20 × 1, infero conoideo, pedicello 2-3 × 1 vix evoluto ornato.

Hab. ad folia viva Rivinæ levis, in dumetis prope Metán Salta Argentina Amer. austr.

25. Pestalozzia Salicis Hollós, Ann. Mus. Nat. Hung. IV (1906) 7887 p. 379, tab. IX, fig. 26. — Acervulis epidermide tectis, globulosis, peritheciiformibus, brunneis, 250-280 μ. diam.; conidiis elongato-fusiformibus, rectis, v. rarius curvulis, chloro-hyalinis, 3-septatis, 24-32 × 4-6, vertice ciliis 3-5 hyalinis, 20 μ. longis ornatis.

Hab. in ramis Salicis babylonicæ dejectis, Kecskemét Hungariæ.

26. Pestalozzia Elasticæ Koord., Botan. Untersuch., Java (1907) p. 223. 7838
— Acervulis atris, amphigenis, erumpentibus, circularibus, sparsis v. gregariis; conidiis fusiformibus, quadriseptatis, loculis 3 interioribus fuscis, extimis hyalinis, 25 × 6 (parte colorata); triaristatis, aristis filiformibus, hyalinis, apice subgloboso-incrassatis 32,5 μ. longis; basi stipite filiformi 5 μ. longo.

Hab. in foliis ab insectis corrosis Fici elasticæ prope Penunygalan prov. Kedu Java (Koorders).

27. Pestalozzia Hartigii v. Tub. — Syll. X p. 490 — subsp. Betulæ 7839 Laub., Arb. K. biol. Anst. f. Land. K. Forstwirtsch. V (1906) p. 210. — A typo differt conidiis setulis molto longioribus præditis (30-40 \* 0,75) et forma loculi terminalis diversa, quæ est depressa et fere inconspicua.

Hab. in ramulis corticatis ægrotantibus Betulæ, Kreis Jerichow, Saxonia Germania. — Verisimiliter pathogena et morbum dietum «Einschnürungs-Krankheit» efficiens.

28. Pestalozzia Myricæ Koord., Botan. Untersuch. Java (1907) p. 224, 7840 fig. 33 V. — Acervulis amphigenis erumpentibus; conidiis oblongo-fusoideis, 4-septatis, 16-18 × 5-6,5, apice truncatis, inferne acuminatis, loculis 3 centralibus fuscis, extimis hyalinis, apice 2-3-

setigeris; setis 30-32 u. longis apice truncato-dilatatis, hyalinis. curvatis v. flexuosis; pedicellis filiformibus hyalinis, continuis, fasciculatis, 60-75 u. longis.

Hab. in foliis et ramulis Myricæ javanicæ in M. Sendoro

prope Sigatok prov. Kedu Java (Koorders).

29. Pestalozzia versicolor Speg. - Syll. III p 790 - var. vagans 7841 Spegazz., Fungi Paulist., Rev. Mus. La Plata t. XV, p. 42 (1908). — Conidiis fusoideo-clavulatis 20-30 × 8-10, 4-septatis non v. vix constrictis, loculis 3 internis fuligineis (intimo obscuriore) 2 extimis hyalinis, pedicello brevissimo 3-10 µ. suffultis, setulis 3 divaricatis 20 × 1, hyalinis coronatis.

Hab. ad folia languida arborum arbuscularumque plurimarum in hortis Sao Paulo Brasilia (USTERI).

30. Pestalozzia funerea Desm. - Syll. III p. 791. - Var. macro- 7842 chæta Speg., Myc. Argent. V. p. 412, in Anal. Mus. Nac. Buenos Aires XX (1910). - A typo differt setulis longioribus 30 × 1.

Hab. ad acus dejectas subputrescentes Pini silvestris Villa Elisa Argentina Amer. austr. — Var. eusora Sacc., in Ann. Mycol. VI (1908) p. 568. — A typo differre videtur acervulis magis regularibus, compactiusculis, epidermide adhærente cinctis, 250 p. diam.; conidiis omnibus partibus paullo minoribus, nempe  $20-22 \times 5,5-6$ ; pedicello  $6 \times 1,3$ ; setulis subternis  $11 \times 1,3$ . — In pag. inferiore foliorum languentium Heptapleuri Barteri, Roça Sandade S. Thomé, alt. 700 m. (commun. A. D. Moller) — Media videtur inter Pest. funeream et Pest. microsporam. - Var. Hedychii Giuditta Mariani in Atti Soc. It. Sc. Nat. L (1911) pag. 171. — Conidiis 20-23 × 5,5-6, apice ciliis binis, rarius ternis v. quaternis. - In caulibus foliisque Hedychii coronarii, in horto bot. Coimbra Lusitaniæ (Moller).

31. Pestalozzia Thujæ Hollós, Növényt. Közlemén. VI, (1907) Extr. 7848 p. 9. - Acervulis epidermide tectis, sparsis, fuscis, punctiformibus; conidiis cylindraceis, rectis v. plerumque curvulis, 3-septatis, ad septa non constrictis, chloro-hyalinis, 24-30 × 5-5,5, vertice ciliis 3-5 hyalinis, usque ad 20 µ. longis ornatis.

Hab. in ramis siccis dejectis Thujæ occidentali's, Kecskemét Hungariæ.

32. Pestalozzia Shiraiana P. Henn., Engl. Jahrb. Bot. XXXVII (1905) 7844 p. 164. — Maculis effusis, pallide fuscis; acervulis gregarie sparsis, punctiformibus epidermide fissa tectis, dein prorumpentibus, fuscis; conidis oblonge fusoideis, 4-septatis, cellulis mediis (3) atris,

cellulis externis subpapillatis, hyalinis;  $13-17 \approx 4-6$ , setulis (3) filiformibus c. 10-15  $\mu$ . longis, pedicello hyalino 6  $\mu$ . longo.

Hab. in foliis Cryptomeriæ japonicæ, Yoshino prov. Yamato Japoniæ (Shirai) — A Pest. funerea omnino diversa.

33. Pestalozzia fuscescens Sorauer, Pflanzenkrankh., 2a ed. vol. II, p. 7845 399-400, fig. 18-19 (1886) et 3 ed. v. II, p. 431-432. — Acervulis innatis dein erumpentibus, dense gregariis, nigris, minutis; conidiis elliptico-oblongis v. late fusoideis, 32-38 ≈ 14-16, quinquelocularibus, loculis ternis interioribus coloratis, brunneis, centrali atrobrunneo, supremo minimo, anguste conoideo hyalino, imo in stipitellum brevem, conidio breviorem tenuato; ciliis apicalibus binis divaricatis, hyalinis, conidium dimidium subæquantibus.

Hab. in plantulis junioribus Coryphæ australis cultæ, quas denique occidit ex India orient.

34. Pestalozzia Coperniciæ Speg., Myc. Arg. V, p. 411, in Anal. 7846 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; acervulis sparsis v. gregariis, erumpentibus, lenticulari-conoideis, 100-200 μ. diam., nigris; conidiis clavulato-subfusoideis 4-septatis ad septa non v. vix constrictis, 25-30 × 5-6, loculis centralibus fuligineis subculoideis, extimis conoideis hyalinis, supremo modice rigideque biciliato, infimo pedicello basali breviusculo 5,15 × 1, hyalino prædito; setulis apicalibus divaricatis 10-15 × 1.

Hab. ad fructus nondum maturos subputrescentesque Coperniciæ ceriferæ, Puerto Leon Misiones Argentina Amer. austr.

35. Pestalozzia pallidicolor Speg., Myc. Arg. V, p. 412, in Ann. 7847 Mus. Nac. Buenos Aires XX (1910). — Acervulis sparsis erumpentibus, 100-150 μ. diam.; conidiis subclavulatis, 22-24 × 6-7, 4-septatis ad septa non v. vix subconstrictis, loculo supremo mucroniformi hyalino setulis tribus conoloribus patentiusculis tenuibus 12-15 × 0,75 ornato, infimo obconico hyalino in pedicellum hyalinum 5 × 1 attenuato, cæteris centralibus fumosis v. pallide olivaceis.

Hab. ad scapos aridos v. subputrescentes Synandrospadicis vermitoxici in horto botanico La Plata Argentina America austr.

36. Pestalozzia Aloës Trinchieri, Rnd. R. Acc. Sc. Napoli (1909) 7848 fasc. 8-12, Extr. p. 8. — Acervulis majusculis, gregariis, epidermide fissa velatis, sublenticularibus, nigris, 171-245 μ. diam., 61-122 μ. altis; conidiis copiosissimis, fusoideis vel subpiriformibus, quandoque curvulis, 4-septatis, non vel vix constrictis, 19,5-24,5 × 4,5-7; loculis tribus mediis crassioribus, fuscidulis,

duobus extimis minutis, subtriangularibus, hyalinis, loculo supero setas ternas, longiusculas, filiformes, divaricatas apice acutulas,  $17-24.5 \times 1$  gerente, infero in pedicellum hyalinum,  $4.5-9.5 \times 1$  producto.

Hab. in scapo sicco Aloës virentis Haw., in Horto regio botanico neapolitano Ital. austr. — A Pest. funerea Desm., cui forte affinis, acervulis gregariis, conidiis brevioribus, setis semper ternatis et multo longioribus dignoscitur.

MONOCHÆTIA Sacc. - Syll. III p. 797, XI p. 579, XVIII p. 485. 7849

1. Monochætia ampelophila Speg., Myc. Arg. V, p. 410, cum icon., in Anal. Mus. Nac. Buenos Aires XX (1910). -- Maculis nullis; acervulis sparsis v. plus minusve dense gregariis, erumpentibus, hemisphærico-depressis, 150-250 μ. diam., sordide fusco-olivaceis; conidiis constipatis oblanceolatis, subclavulatis v. subfusoideis arcuatulis, 24-30 × 6-8, 4-septatis ad septa constrictulis, loculis 3 centralibus chlorinis, extimis hyalinis, supremo setula fere horizontali recta v. arcuatula, 5-10 × 1 ornato, infimo conoideo in pedicellum setuliformem vel incrassatulum 5-10 × 1-3 concolorem producto.

Hab. ad sarmenta viva Vitis viniferæ. Villa Hojo del A-

gna, Santiago del Estero Argentina America austr.

2. Monochætia osyridella Bubák, Bull. Herb. Boiss. 2 sér., VI (1906) 7850 p. 484, tab. XV, fig. 5. — Acervulis subepidermicis, 120-150 μ. latis, rotundatis, nigris, demum erumpentibus; conidiis elongatofusoideis, 18-29 × 5,5-6,5, rectis v. curvis, 5-locularibus, 3 (raro 2) mediis obscure castaneo-brunneis, loculo centrali minori; loculis terminalibus hyalinis, setula 12-15,5 × 1, hyalina præditis; conidiophoris cylindraceis 15-18 × 2-2,5, hyalinis.

Hab. in ramulis siccis Osyridis albæ prope Ulcinj Montenegro. — Probabiliter species non v. vix diversa a Monoch. osyrella (Tassi 1904) Sacc. et D. Sacc. — Syll. XVIII, p. 486.

3. Monochætia excipuliformis Bubák, Ann. Mycol. IV (1906) p. 120. 7851 — Acervulis subcorticolis, dein erumpentibus, sparse gregariis, rotundatis v. elongatis, pustulatis v. discoideis, nigris, sæpe confluentibus, hypostromate usque ad 50 μ. cr., flavo-brunneo; conidis ex ellipsoideo fusoideis, 11-18 × 4-5,5, triseptatis, olivaceo-brunneis, cellulis terminalibus hyalinis v. coloratis, rotundato-angustatis, ciliolis hyalinis curvulis 18-30 × 0,5-1 præditis; loculo basilari pedicello recto v. curvulo 20-30 × 0,5-1 prædito.

Hab. in ramis emortuis Salicis sp. prope Prag Bohemia. — Habitus macroscopice excipulaceus.

- 4. Monochætia mucronata (Massee) Maire, Bull. Soc. Bot. Fr. LIV 7852 (1907) p. CLXXXVII. - Teste cl. Maire, l. c. ita vocandum Coryneum mucronatum Mass. - Syll. XI, p. 577.
- 5. Monochætia Desmazierii Sacc. Syll. XVIII, pag. 485. Huc 7853 spectat Pestalozzia monochæta Desm. — Voglino, Monogr. Pest. p. 29, t. X, f. 27 = Pest. Saccardoi Speg. - Syll. III, p. 797.
- 6. Monochætia Saccardiana (Voglino) Sacc., Pestalozzia Saccardiana 7854 Voglino, Monogr. gen. Pest. p. 27, t. X, f. 32 (1885). — Huc spectat Pestal. monochæta Sacc. F. ital. fig. 1119 - Syll. III. p. 797 — non Desm.

### Sect. 7. Phæodictyæ.

STEGANOSPORIUM Kunze et Schm. — Syll. III p. 803, X p. 508, 7855 XIV p. 1035, XVI p. 1022, XVIII p. 488.

1. Steganosporium Sirokoffii Bubák (nomen citatum una cum sequente, p. 533), Thyrococcum Sirokoffii Bubák, in Ber. Deutsch. bot. Gesell. Bd. XXVIII (1910) p. 533, t. XVI, Steganosporium Kosaroffii Turconi et Maffei, Atti Ist. bot. Pavia ser. II, v. XII, p. 334, t. XII, f. 3 (1910 serius), Thyrostroma Sirokoffii (Bubák) v. Höhn. - Acervulis subcorticalibus, dein erumpentibus, pulvinatis, gregariis, confluentibus, nigris, rugosis, opacis, demum subnitidis, firmis; hypostromate ex contextu pseudoparenchymatico v. partim ex hyphis contextis composito; conidiis in apice cellularum seriatarum insertis, typice clavatis v. ovoideis v. ellipsoideis irregularibusque 38-85 × 19-35, plerumque 3-6- rarius vero 8-9-septatis, valde constrictis, loculis fere omnibus longitudinaliter 1-3-septatis, brunneis; conidiophoris modo usque ad 40 × 10, distinctis, modo brevibus a ceteris cellulis non discretis.

Hab. in cortice Mori albæ, cui valde nocet, in Bulgaria (P. SIROKOFF et P. KOSAROFF). - Cum species sit primo subcorticalis inter Melanconiaceas manere potest et tunc genus Thyrococcum Höhn, non Sacc. (= Thyrostroma v. Höhn, serius) supervacaneum.

2. Steganosporium piriforme (Hoffm.) Cda. - Syll. III, p. 803 - 7856 var. majus Ell. et Ev. in herb. Sacc. et ap. Noelli in Malp. XVII (1903) p. 415, f. 2. — Acervulis majoribus, tumidis, nigris, 4-5 mm. long., 3-4 mm. lat., 1 mm. alt., irregularibus; conidiis quam typi similibus, sed multo amplioribus, 43-55 × 26-29 (nec 21-24 × 12-14).

Hab. in ramis corticatis Aceris saccharini, London Canada.

3. Steganosporium compactum Sacc. — Syll. III, p. 804 — Thyro-7857 stroma compactum (Sacc.) v. Höhnel, Stzb. K. Ak. Wiss. Wien, CXVI (1907) p. 154 — var. Tiliæ Sacc., in Potebnia Myc. Stud. Ann. Myc. v. V (1907) p. 21, fig. 42 et Trav. Soc. Nat. Univ. Kharkov XXXXIII (1907). — Cæspitulis sphæroideis; conidiis 50-55 × 15-16, clavatis, brunneis, 4-7-septatis, constrictis, loculis 1 vel 2 medianis etiam longitudinaliter septatis; conidiophoris pallidioribus, 30-35 × 4,5.

Hab. in ramis Tiliæ europææ prope Kursk, Rossia.

- 4. Steganosporium Mori (Nomura) Sacc. et Trott. Ita vocandum 7858 Coryneum Mori Nomura Syll. XVIII, p. 478 nam ex observationibus cl. Butler in Mem. Depart. Agric. in India II (1909) p. 1-11, tab. 1-11, conidia sunt sæpe muriformia. Species nascitur præter Japoniam quoque in Moris, Kaschmir, ubi pariter valde noxia.
- Steganosporium curvatum Corda, in Opiz Beiträge zur Nat. (1823-7859 1825) p. 458 (Diagnosis desideratur).
   Hab. in . . . . . agro pragensi.

PHRAGMOTRICHUM Kze. et Schm. — Syll. III p. 806, X p. 509, XI p. 585, XIV p. 1036.

1. Phragmotrichum Flageoletianum Sacc., Ann. Mycol. VI (1908) 7860 pag. 560, tab. 24, fig. 8. — Acervulis laxe gregariis, pulvinatis, nigris, ½ mm. diam., compactiusculis, erumpentibus, epidermide fissa cinctis; conidiis in catenas usque ad 150 μ. longas junctis, isthmis nullis interjectis, ellipsoideo-oblongis, utrinque rotundatis, 3-5-septato-muriformibus, 15-20 × 8-10, fuligineis, levibus.

Hab. in ramulis languidis et emortuis Carpini Betuli, Rigny sur Arroux Galliæ (Flageolet). — Ob conidia isthmis nullis connexa species hæc nec non Phragm. Platanoidis et Phragm. Spirææ subgenus proprium (Phragmotrichella Sacc.) constituere merentur.

## Sect. 8. Hyalodictyæ.

THYRSIDINA v. Höhn., Ann. Mycol. III (1905) p. 337 (Etym. Thyrsidium cujus est analogum genus). — Fungus vegetus coloratus, gelatinoso-carnosus, erumpens; stroma pallide coloratum, crassum ple-

ctenchymaticum, ex hyphis floccosis constitutum. Conidia hyalodictya, ad apicem hypharum singula, rotundata, primum stromate innata demum superficialia, conglutinata.

Thyrsidina carneo-miniata v. Höhn., Ann. Mycol. III (1905) p. 337. 7861
 Stromate e carnoso coccineo, udo carnoso-gelatinoso, sicco ceraceo, erumpenti, peridermio lacerato limitato, 0,5-2 mm. lato, 120-300 μ. cr., ex hyphis subparallelis, floccosis, plectenchymaticis, subgelatinosis, 3 μ. cr. efformato; conidiis pallide roseis, 16-20 μ. d.

Hab. in ramis Aceris Pseudoplatani, Wiener Wald, Austria. — Verisimiliter parasitica in Diaporthe Platanoidis.

### Sect. 9. Scolecosporæ.

CYLINDROSPORIUM Ung. — Syll. III p. 737, X p. 498, XI p. 582, XIV p. 1032, XVI p. 1018, XVIII p. 491.

Cylindrosporium Ribis Davis, Trans. Wiscons. Ac. of. Sc. XVI, 7862
 Pt. II (1909) p. 759. — Maculis subcircularibus, luridis v. fuscis, margine obscuro angusto præditis, 2-6 mm. diam.; acervulis 30-50 μ. diam.; conidiis in epiphyllo eructatis, curvis, apice distincte attenuatis, 50-80 × 1,5.

Hab. in foliis Ribis tristis et R. prostrati, Racine Amer. bor.

2. Cylindrosporium Lathyri Bub. et Kab., Sechst. Beitr. Pilzfl. Tir. in 7863 Ann. Myc. V (1907) p. 44. — Maculis foliicolis amphigenis, irregulariter rotundatis v. angulosis, quandoque confluentibus, ochraceis, brunneo-purpureo-marginatis, demum pallescentibus; acervulis epiphyllis, sparsis v. gregariis, parvis, 50-100 μ. latis, primum subepidermicis, dein epidermidem lacerantibus et flocculos sordide flavidos ostendentibus; conidiis filiformibus, utrinque rotundatis, rectis v. varie incurvatis, 40-100 × 2-3,5, 1-4-locularibus, hyalinis; conidiophoris subconoideis, usque ad 10 μ. long., 2 μ. circ. crassis, flavidis.

Hab. in foliis vivis Orobi (Lathyri) verni prope Madonna di Campiglio, in agro Tridentino. — Verisimiliter non diversum a Phleospora Orobi Potebnia.

3. Cylindrosporium Pomi Brooks, Bull. Torr. Bot. Cl. XXXV (1908) 7864 pag. 453, cum tab. et fig. — Acervulis pallidis subeffusis, primo subepidermicis, dein erumpenti-liberis; conidiis hyalinis, granulosis, filiformibus, rectis v. flexuosis, 15-80 × 2-2,5.

Hab. in fructibus Piri Mali quos valde vexat Amer. bor.

4. Cylindrosporium Fairmanianum Sacc., Ann. Mycol. VI (1908) p. 566. 7865 — Maculis amphigenis minutis, orbiculato-angulosis, 1-2 mm. d., ochraceo-argillaceis, supra distinctioribus; acervulis innatis sæpius epiphyllis ex hyphis filiformibus, hyalinis, tenuibus formatis; conidiis bacillaribus, sæpius curvulis, continuis, 50-70 × 1-2, hyalinis, dein in cirros dilutissime carneos minutos versiformes eructatis.

Hab. in foliis languidis Spirææ lanceolatæ cultæ, Lyndonville N. Y., Amer. bor. (FAIRMAN). — A Cylindr. Filipendulæ acervulis sæpius epiphyllis, conidiis multo longioribus, continuis etc. differre videtur.

5. Cylindrosporium malisoricum Bubák, Bull. Herb. Boiss., 2 sér., VI 7866 (1906) pag. 485. — Maculis minutis, 1-2 mm. lat., subrotundis, centro arescendo albicantibus, anguste purpureo-marginatis, internerviis; acervulis epiphyllis, 50-150 μ. diam., subrotundo-lobatis, epidermide tectis et initio eam brunneo-punctulatam reddentibus; conidiophoris e strato flavo-brunneolo oriundis, 6-12 × 1-1,5, sursum tenuatis, basi subfasciculatis; conidiis filiformibus, usque ad 65 × 1,5-2, rectis curvulisve, obsolete 1-3-septatis, hyalinis, utrinque acutatis.

Hab. in foliis vivis Opopanacis Chironii pr. Ulcinj Montenegro.

Cylindrosporium septatum Romell — Syll. X, p. 503 — fm. He-7867 losciadii Sacc., Ann. Mycol. VI (1908) p. 560. — Conidiis filiformibus, 50-60 ≥ 3, deorsum sæpe nonnihil crassioribus, 5-septatis, hyalinis.

Hab. in foliis languidis Helosciadii nodiflori prope Parisios Galliæ (P. Hariot). — Fm. Sii latifolii Sacc, Ann. Mycol. VII (1909) p. 434. — Conidiis prælongis sursum acutatis, 60-80 ≈ 4, hyalinis, spurie 8-10-septatis. — In foliis Sii latifolii, Mery sur Seine Galliæ (P. Hariot).

7. Cylindrosporium Olivæ Petri, Ann. Myc. V (1907) p. 324, fig. 1-5. 7868 — Acervulis sine ordine dispositis, subcutaneis, erumpentibus, albidis; strato conidiophoro initio involuto-clauso, demum explanato-aperto; conidiis elongatis, unicellularibus, bacillaribus, curvulis, flexuosis, hyalinis, 12-15 μ. longis, 1,5-2,5 latis; conidiophoris filiformibus, basi attenuatis, continuis.

Hab. in fructibus maturis vivis Oleæ europeæ, in Italia.
— Maculæ magnæ, depressæ, pallidæ vel flavo-purpurascentes, atro-purpureo-marginatæ, ad basim fructuum orientes.

8. Cylindrosporium Melissæ Mass., Contrib Micol. Veron. (1889) 7869 p. 103, t. 4, f. 23. — Maculis irregularibus, exaridis; acervulis subpunctiformibus, amphigenis, subcuticularibus, in cavitatibus subgloboso-conicis demum poro perviis inclusis, 50 × 30; conidiis exiguis filiformibus, hyalinis, continuis, subfalcato-curvulis, 28-35 × 1.8.

Hab. in foliis bracteisque Melissæ officinalis prope pa gum Avesa. prov. Veronensis Ital. bor. — Observante ipso auctore, videtur Septoria Melissæ pycnidio carens.

9. Cylindrosporium Eleonoræ-reginæ Bub. et Malk. in Kab. et Bub. 7870 Fungi imp. exs. fasc. XI, n. 532 et in Ber. IV Versamml. böhm. Naturf. u. Ærzte (1909) p. 302 (sine diagnosi).

Hab. in foliis Senecionis transsilvanici ad Crno Jezero infra M. Musalla Bulgariæ. — Auctor nos monet se proxime diagnosim editurum esse.

10. Cylindrosporium Betulæ Davis, Trans. Wisconsin Ac. of Sc. XVI, 7871 P. II (1909) p. 759. — Maculis subcircularibus indefinitis, subtus brunneo-cinnamomeis supra obscurioribus, margine viridescenti, 3-8 mm. diam.; acervulis hypophyllis, pallide brunneis; conidiis bacillaribus, rectis v. curvulis, obtusis, 25-40 × 1,5-2.

Hab, in foliis Betulæ pumilæ, Sullivan Amer, bor.

11. Cylindrosporium Bambusæ Miyake et Hara, Bot. Mag. Tokyo (1910) 7872 p. 355 (japonice).

Hab. in foliis Bambusæ in Japonia.

CRYPTOSPORIUM Kunze — Syll. III p. 740 X p. 506, XI p. 585, XIV p. 1034, XVI p. 1019, XVIII p. 492.

1. Cryptosporium acerinum Bresad. in Kab. et Bub., Fungi imper-7878 fecti exsiccati n. 581 (1909). — Acervulis subcutaneis erumpentibus, pallidis, 0,5-2 mm. latis; conidiis oblongo-ovoideis, subcurvatis v. curvatis, apice subrostratis, hyalinis, 18-24 μ. long., 6-7 μ. lat.; conidiophoris 25-40 μ. long., 2,5-3 μ. lat.

Hab. in ramis emortuis Aceris tatarici, Welwarn Bohemiæ (J. E. KABAT).

2. Cryptosporium leptostromiforme J. Kühn, Ber. des landw. Inst. Halle (1880); Frank, Kampfb. geg. Schädl. t. 17, f. 14. — Maculis 7874 flavicantibus; stromatibus nigris, seriatis; loculis numerosis, foraminibus colliformibus præditis; conidiis continuis bacillaribus utrinque rotundatis, 7-8,5 × 2, hyalinis, conidiophoris suffultis.

Syll. fung. XXII (VI-1913)

Hab. in caulibus Lupini spp. quibus vere exitiosum, in Germania.

3. Cryptosporium Cydoniæ Schulz. v. Mügg. Verh. zool. bot. Gesell. 7875 Wien (1871) pag. 1234, tab. 13, fig. 12-13 a-f. — Acervulis seu stromatibus subcutaneo-erumpentibus globoso-conoideis, nigris, 300-600 p. diam., intus pallidis; conidiis brevissime pedicellatis, ellipsoideo-oblongis, 7-8 µ. long., utrinque 1-guttulatis, hyalinis.

Hab. in ramis corticatis Cydoniæ vulgaris in Hungaria. — Var. impressum Schulz. v. Mügg., l. c. p. 1235, fig. 13 g-l. — Stromatibus pulvinatis, obtusis, nigris, intus loculo anulari præditis, pallidis; conidiis plerumque teretiusculis, 2-guttulatis, hyalinis. - In ramulis tenellis Cydoniæ vulgaris in Hungaria.

4. Cryptosporium minimum Laubert, Centralbl. f. Bakter. II Abt. 7876 XIX (1907) p. 166. — Acervulis minutis, achrois, in cella pneumatophora dilatata insidentibus, pycnidiformibus, 150 μ. diam.; conidiis suballantoideis, 1-cellularibus, curvulis, hyalinis, 16-27 × 2,2-3,8 in cirros albos minutos ex stomatibus exsilientibus.

Hab. parasitice in ramulos, frigore plus minus vexatos, Rosæ sp., verisimiliter R. multifloræ, pr. Dahlem, Berlin Germaniæ. - Fungillus nascitur gregarius in maculis matricis nigricantibus suborbicularibus, sæpe purpureo-marginatis, demum brunneo-cinerescentibus.

5. Cryptosporium Seselis Moesz, Gomb. Budap. I (1909), p. 23, t. II, 7877 f, 13 a-b (Bot. Közlem.). - Acervulis gregariis, discoideo-conicis, 143-430 μ. diam., sæpe confluentibus, nigris, sub lente fuscis, epidermide tectis, dein ore 13-33 µ. diam. pertusis; conidiis falcatis, utrinque acutiusculis, 22-25 × 1,5-2, hyalinis, continuis; conidiophoris fasciculatis, ramosis, ramis filiformibus.

Hab. in caulibus siccis Seseli glauci prope Budapest Hungariæ.

6. Cryptosporium Euphorbiæ v. Höhn., Krypt. exs. Mus. Palat. Vin- 7878 dob. n. 1181 (1906) et in Annal, Naturhist. Hofmus. Wien, Bd. XX (1905) p. 20. — Acervulis planis, rotundis, sparsis, 300-400 μ. latis, rufo-brunneis, demum ore pertusis, sub epidermide secedente nidulantibus; conidiis cylindraceis, utrinque rotundatis, curvulis, guttulis oleosis repletis, hyalinis, continuis, 22-26 × 2-4, plerumque 24 × 3, in conidiophororum simplicium brevium apicibus.

Hab. in caulibus Euphorbiæ palustris in silva Schorwald pr. Szentgyörgy in Hungaria (A. ZAHLBRUCKNER).

7. Cryptosporium Ipirangæ Spegazz., Fungi Paulist., Rev. Mus. La 7879

Plata (1908) t. XV, p. 42. — Maculis suborbicularibus amphigenis 1-4 mm. diam. nitidulis, limitatis, areola infuscata opaca cinctis; acervulis epiphyllis, in centro macularum paucis, primo lenticularibus fuscidulis epidermide tectis, dein scutellatis 50-80  $\mu$ . diam., strato proligero fusco-parenchymatico donatis; conidiis rectis v. arcuatis utrinque acutiuscule rotundatis,  $20-25 \approx 1$ , triseptatis, hyalinis.

Hab. ad folia coriacea arboris cujusdam ignotæ in hortis, Ipiranga Cambury Brasilia (Usteri).

8. Cryptosporium rhodocyclum Mont. in litt. Cfr. Alm. et Cam., Bol. 7880 Soc. Brot. XXV (1908–1909), Extr. p. 43, Phyllosticta hæmatocycla Berk., Alm. et Cam. Rev. Agron. II, p. 249, tab. II, fig. 3-4. — Maculis latissimis, irregularibus, pallidis, rufo-cinctis; acervulis numerosis, sparsis, plano-pulvinatis, subinde discoideo-lenticularibus, primo tectis demumque, epidermide lacerata, centro erumpentibus, irregulariter undulatis, 150-300 μ. longis; conidiophoris clavatis, 20-30 μ. longis; conidiis subclaviformibus, raro cylindraceis, sæpius inæquilateralibus, hyalinis, continuis, homogeneis aut uni- v. plerumque biguttulatis, 17-22 × 7-8.

Hab. in foliis Phormii tenacis, cult. in hort. bot. Olyssiponensi ad Ajudam Lusitania (leg. Welw. hyeme 1842-1843). — Cfr. Syll. III, p. 61.

PHLEOSPORA Wallr. — Syll. III p. 577, X p. 398, XI p. 550, XIV p. 981, XVI p. 975, XVIII p. 488.

- Phleospora castanicola (Desm.) D. Sacc. Mycoth. ital. Cent. I-II, 7881
   n. 173 (1898). Ita vocanda Septoria castanicola Desm. Syll. III, p. 504.
- 2. Phleospora Robiniæ (Lib.) v. Höhnel, in Ann. Mycol. III (1905) 7882 p. 333, Potebnia in Ann. Mycol. VIII (1910) p. 71, f. 21. Ita vocanda Septoria Robiniæ (Lib. sub Ascochyta, 1837) Desm. Syll. III, p. 484 (= Sept. curvata Rabenh. et Braun Syll. III, p. 484).
- 3. Phleospora Caraganæ Jacz. Syll. XVI, p. 975 var. Lathyri 7883 Poteb., Ann. Mycol. V (1907) pag. 19 et Trav. Soc. Nat. Univ. Kharkov, XXXXIII (1907). Maculis pallidis, flavidis, magnis, nervis limitatis; acervulis sparsis, initio pallide flavo-brunneis, hemisphæricis, primo epidermide tectis dein erumpentibus; maturis nigris, globosis; conidiis 35-40 × 3, 1-3-septatis.

Hab. in foliis Lathyri pisiformis prope Kursk, Rossia. -

St. magis evolutus typi videtur Septoria Caraganæ P. Henn. — Syll. XVIII, p. 377.

4. Phleospora Orobi Poteb., Ann. Mycol. V (1907) pag. 20 et Trav., 7884 Soc. Nat. Univ. Kharkov XXXXIII (1907). — Maculis indeterminatis, magnis, brunneo-marginatis; pycnidiis pallidis; conidiis 45-52 × 2, 1-3-septatis; conceptaculis vacuis obscure brunneis.

Hab. in maculis Orobi (Lathyri) verni prope Kursk Rossiæ. — Ab hac specie forte non differt Septoria orobicola Sacc. seu Cylindrosporium orobicola (Sacc.) Bubák in Növényt. Közl. (1907) Heft 4, p. 38 (extr.), in Bohemia quoque lecta.

5. Phleospora hungarica Bubák, Beitr. Pilzfl. Ung., in Növénytani 7885 Közlemények (1907) Heft 4, Extr. p. 36. — Maculis rotundatis v. ellipsoideis, arescendo albido-griseis, parvis, 1-3 mm. latis, undulato-zonatis, definitis, areola angusta sordide rubro-carnea circumdatis, in folium sparsis v. raro gregariis et quandoque confluentibus; pycnidiis (spuriis) epiphyllis, sparsis v. gregariis, flavo-ochraceis, subepidermicis, 80-100 μ. diam.; conidiis falcatis, 20-33 × 2,5-3,5, utrinque fortiter angustatis, hyalinis, transverse uniseptatis; conidiophoris phialiformibus, 10-15 × 3-4,5, hyalinis.

Hab. in foliis Vincetoxici laxi, in M. Suskuluj prope Herculesfürdő Hungariæ.

6. Phleospora borealis Lind et Vleugel, Svensk Botan. Tidskr. Bd. 7886 II (1908) p. 383, fig. 4. — Maculis sparsis, minutis, 4 mm. circ. diam., subcircularibus, amphigenis, ochraceis, in pagina superiore foliorum obscurioribus, coriaceis; pycnidiis (spuriis) 10-20 in centro paginæ inferioris macularum dense gregariis, vix prominulis, imperfectis, cellulis parenchymaticis sursum brunneis, deorsum (in textura folii) hyalinis; conidiis crassiusculis, cylindraceis, rectis, obtusis, 16-20 \* 3-4, 3-5-septatis, ad septa constrictis, hyalinis, cirro albido.

Hab. in foliis vivis Alni incanæ fm. borealis, Umeao Sueciæ (J. VLEUGEL).

7. Phleospora taurica Sacc. in Ann. Mycol. IX (1911) p. 254. — Marculis epiphyllis fusco-brunneis, angulosis, 2 mm. diam., nervis limitatis, sæpe confluentibus; acervulis punctiformibus epidermide velatis, 60-70 μ. diam., subcircularibus, non prominulis, trans folium diaphane visibilibus, pallidis; conidiis bacillaribus, utrinque obtusulis, sæpius curvulis, typice 3-septatis, non constrictis, hyalinis, 30-36 × 2,5-3; conidiophoris paliformibus, parallelis brevissimis.

Hab. in foliis subvivis Populi albæ in Tauria (Schiraevsky).

8. Phleospora Hanseni Bubák, Journ. of Mycol. XII (1906) p. 54. — 7888 Acervulis epiphyllis, sparsis, macula destitutis, 150-220 µ. latis, subepidermide bullata nidulantibus, primum clausis demum late apertis, subiculo pallide flavo-brunneo, ex hyphis subclavatis et acervulos paraphysioideos efformantibus constituto; conidiis e falcato sublunatis, raro rectis, 20-35 × 2,5 3, utrinque angustatis, unilocularibus v. transverse distincte uniseptatis, hyalinis; conidiophoris papilliformibus, hyalinis.

Hab. in foliis vivis Quercus Morehi, Pine Grove Amador Co. California Amer. bor. (Hansen).

9. Phleospora callistea Syd., Ann. Mycol. VII (1909) p. 439, My-7889 coth. germ. fasc. XVI-XVII, n. 785. — Maculis amphigenis, valde conspicuis, irregularibus, præcipue apicem foliorum occupantibus, linea obscuriore cinctis, flavo-brunneis; pycnidiis (?) epiphyllis, dense gregariis, depresso-globosis, epidermide tectis, flavo-brunneolis, 80-140 μ. diam., pariete ut videtur tantum e contextu matricis mutato formato; conidiis oblongis v. elongatis, utrinque obtusis, primo medio septatis, dein 2-3-septatis, hyalinis, 16-22 × 3-4.

Hab. in foliis vivis Osmundæ regalis, pr. Müritz Germaniæ (Sydow). — Socia adest Sphærella callistea Syd. ad quam verisimiliter spectat.

- PSEUDOSTEGIA Bubák, Journ. of Myc. XII (1906) pag. 56 (Etym. pseudes falsus et Stegia). Acervuli depressi, rotundati, subepidermici, dein prominentes, demum applanati, ad marginem setulosi; conidia falcata, unilocularia, hyalina; conidiophora cylindracea, hyalina v. flavidula. Gen. Anaphysmene proximum.
- 1. Pseudostegia nubilosa Bubák, l. c., p. 56, cum icone pag. 183 et 7890 in Fungi imp. exsicc. fasc. XI, n. 533. Acervulis amphigenis sed plerumque epiphyllis, sparsis v. gregariis, sæpe inter nervos breviter subseriatis, depressis, rotundatis, 120-160 μ. latis, nigris, non nitidis, subepidermicis dein apertis, hypostromate circ. 55 μ. cr.; setulis castaneo-brunneis 45 × 4, apice acutatis basi sæpe subinflatis; conidiis curvulis, utrinque angustatis v. etiam acutatis, 18-24 × 2,5, unilocularibus, hyalinis; conidiophoris brevibus, cylindraceis, 8 μ. long., hyalinis v. flavidulis.

Hab. in foliis emortuis Caricis spec., Lexington Kentucky Amer. bor. (W. A. Kellerman). — Status conidicus probabiliter Stegiæ Caricis Peck.

- LIBERTELLA Desm. Syll. III p. 744, X p. 507, XI p. 585, XIV p. 1034, XVI p. 1020, XVIII p. 493.
- 1. Libertella prunicola Atkins., Ann. Mycol. VI (1908), pag. 59. 7891 Maculis transversalibus, albidis, minutis; acervulis gregariis interdum confluentibus, erumpentibus, intus pallide stramineis; conidiis longis, fusoideis, curvulis v. tortuosis, hyalinis, demum 1-3-septatis, sæpe pluriguttulatis, 30-50 × 1,5-2.

Hab. ad ramulos emortuos Pruni, Ithaca N. Y. Amer. bor.

2. Libertella Paulowniæ Hollós, Ann. Mus. Nat Hungar. VIII (1910) 7892 p. 8. — Acervulis sparsis, subcutaneis, globulosis, nigris, 1 mm. diam.; conidiophoris bacillaribus, fasciculatis, rectis, 50-60 × 1; conidiis filiformi-falcatis, continuis, hyalinis, 30-35 × 1, in cirros gelatinosos, dilute aurantiacos protrusis.

Hab. in ramis siccis Paulowniæ imperialis, Kecskemét Hungariæ.

3. Libertella ulcerata Massee, Gard. Mag. Jul. 1898, Diseas. cult. 7898 plants (1910) p. 448. — Pustulis gregariis, copiosis, minutis, subepidermicis, dein sæpe erumpentibus; conidiis fusoideis, apice acutis, continuis, curvulis, hyalinis, 55-60 × 4.

Hab. in ramis Fici cult. in America bor.

# HYPHOMYCETÆ Mart. em. Sacc.

Syll. IV p. 1, X p. 510, XI p. 586, XIV p. 1037, XVI p. 1023, XVIII p. 495.

### Fam. 1. Mucedinaceæ Link

Sect. 1. Hyalosporæ.

CHROMOSPORIUM Corda — Syll. IV p. 6, X p. 510, XI p. 586, XIV p. 1037, XVI p. 1023, XVIII p. 496.

1. Chromosporium Formicarum Ferd. et Winge, Botanisk Tidsskr. 7894 XXIX (1908) p. 21, tab. II, fig. 11. — Mycelio lignum cariosum penetrante, tenuissimo; conidiis in ramulis curtis acrogenis, cum pedicello hyalino secedentibus, globosis, guttulis oleosis 1-3 (plerumque 1) repletis, 6-9 μ. diam., sub vitro aurantiaco-pellucidis, superficiem ligni pulvere luteo-ochraceo obducentibus.

Hab. in ligno carioso in insula St. Jan Indiæ occ. (RAUNKIAER).

— Species habitatione prædistincta, cavernas a formicis in ligno carioso fossas omnino obtegens, ibique solum, non extra crescens.

2. Chromosporium pachyderma Ferd. et Winge, Botanisk Tidsskr., 7895 XXIX (1908) p. 22, tab. II, fig. 12. — Conidiis globosis, subglobosis v. angulatis, episporio usque ad 4 μ. cr., 15-20 μ. diam., viridi-pellucidis, supra lignum decorticatum crustam tenuem, ærugineam, late effusam formantibus; mycelio parcissimo, conidiophoris nullis.

Hab. ad lignum decorticatum in insula St. Croix Indiæ occ.

## TORULOPSIS Berl. — Syll. XVIII p. 495.

Torulopsis rosacea (van Hest) Sacc. et Trott., Torula rosacea J. 7896
 J. van Hest, Centralbl. Bakt. 18 (1907) pag. 780, tab. I, fig. B, tab. III, fig. 5-6. — Rosea; conidiis perfecte globosis, 9 μ. diam., levibus, nucleo majusculo sphæroideo 4-5 μ. diam. fætis, congregatis sed non connexis.

Hab. in fructibus Piri Mali, quibus odorem peculiarem affert, in Germania. — Notas biologicas in culturis efr. l. c.

COCCOSPORA Wallr. - Syll. IV p. 9, X p. 511, XI p. 586.

Coccospora rubiginosa Speg. Myc. Argent. V pag. 413, in Anal. 7897
 Mus. Nac. Buenos Aires XX (1910). — Acervulis innato-erumpentibus primo hemisphæricis, 250-500 μ. diam., dense gregariis, discretis dein confluentibus subgelatinosis, melleis; hyphis tenuissimis hyalinis brevibus mox diffluentibus; conidiis dense conglobatis, 20-30 μ. diam., granulosis, levibus, rubiginosis.

Hab. ad truncum vetustum Passifloræ cæruleæ in horto

Tucumán Argentina Amer. austr.

MALBRANCHEA Sacc. — Syll. IV, p. 11 — Synonymum est certe Thermoidium Miehe, Ber. Deutsch. Bot. Ges. XXV (1907) p. 515, nec a Malbranchea pulchella Sacc. et Penz. l. c. differt Thermoidium sulfureum Miehe, l. c. p. 515. — Hæc species præter Galliam reperta est in Germania et Italia.

SPORENDONEMA (Desm.) Oud. — Syll. X p. 515.

1. Sporendonema Artemisiæ Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 7898 pag. 24, t. VI, f. 10-12. — Cæspitulis tumidulis albido-fulvis ex hyphis fasciculatis erectis, sursum divergentibus, 5-6 μ. cr., apice 8,5 μ. cr., septulatis, conidiophora pleurogene emittentibus; conidiophoris intus, divisione plasmatis, conidia gignentibus; conidiis diu catenulatim cohærentibus, cuboideis, 1,12-1,25 μ. diam., demum membrana tubuli secedente nudatis.

Hab. in caulibus emortuis Artemisiæ sp. in Gallia.

2. Sporendonema Salicis Bainier, in Bull. Soc. Myc. Fr. XXIII (1907) 7899 pag. 24, t. VI, f. 7-9. — Cæspitulis densis, flavo-fulvis; conidio-phoris elongatis hinc inde irregulariter ramosis; conidiis intra conidiophora endogene generatis, cuboideis dein sphæricis, plerumque 4,2 μ. diam.

Hab. in truncis emortuis Salicis spp. in Gallia.

**00SPORA** Wallr. — Syll. IV p. 11, X p. 512, XI p. 588, XIV p. 1037, XVI p. 1024, XVIII p. 496.

1. Oospora scables Thaxt., in Ann. Rep. Conn. Agric. Exp. Stat. 7900 1890, Duggar Pl. Dis. p. 291 et 292, f. 127-128, Massee Dis. cult. Plants, p. 458. — Tenuissima, byssina, griseola, fugax; hyphis

filiformibus, septatis v. pseudoseptatis, vix 1 μ. cr., hyalinis, ramosis, exterioribus in articulos (conidia) spirilliformes abeuntibus.

Hab. in tuberibus Solani tuberosi, quæ rugosa seu scabiosa (potato scab) reddit, in America bor. et Britannia. — Culta pelliculas scabiosas format et matricem profunde nigrificat. — An potius Bacteriacea?

2. **Oospora Wiesneri** (H. Zikes) Sacc., *Torula Wiesneri* H. Zikes Sit-7901 zungsb. k. Akad. Wiss. Wien, Math. Naturw. Kl. CVIII (1909) p. 125. — Cæspitulis seu coloniis levibus, pro mediis culturæ variis ex albo griseolis; conidiis (catenulatis?) ellipsoideis 8-12 × 3-4 (in gelatina), 4-7,5 × 2,5-3 (in pane), 5-8 × 2,5-3 (in agar), ætate provecta intus vacuolatis.

Hab. ad folia Lauri nobilis in Austria. — Species ex eo notabilis quod nitrogenium athmosphæricum assimilat. Ascos nullos edit.

Oospora ovicola (Zimm.) Sacc. et Trav. — Syll. XX, p. 234 — 7902
 Torula ovicola O. E. R. Zimm. Verderb. d. Eier (1878) pag. 42,
 t. I, f. 2 (exclusa fig. 1). — Mycelio repente, filiformi, septato, 2
 μ. cr., hinc inde ramulos brevissimos conidiophoros exerente; conidiis in catenulas longiusculas dispositis, elliptico-sphæroideis, 2-3 × 1,7-2, hyalinis, levibus.

Hab. in ovis gallinaceis corruptis in Germania. — Dimensiones ex icone auctoris petitæ. Fig. 1 mycelium alius fungi dematiacei non determinandi affert.

4. Oospora ferruginosa (Cda.) Sacc. et Trav. — Syll. XX, p. 232 — 7908 Torula ferruginosa Corda, in Sturm Deut. Fl. III, fasc. 8, p. 89, t. 41 (1829). — Cæspitulis effusis, irregularibus ferrugineis, 1-2 cm. long. hyphi ramosis; conidiophoris erectis; conidiis globosis, persistenter catenulatis, levibus.

Hab. in ramis decorticatis dejectis, Prag et Neuhof Bohemiæ.
5. Oospora heteromera Speg., Myc. Argent. V, p. 414, in Anal. Mus. 7904
Nac. Buenos Aires XX (1910). — Acervulis superficialibus effusis gossypinulis, tenuissimis, primo albis dein obsoletissime roseis vel subcærulescentibus; hyphis repentibus, torulosis, articulis cylindraceis sensim abbreviatis, 20-40 × 8-10, in conidiis subglobosis v. globosis, 5-9 μ. diam., hyalinis, levibus in catenulas abbreviatas simplices v. bifidas digestis transeuntibus.

Hab. in caryopsidibus Zeæ Maydis diu loco udo servatis, La Plata Argent. Amer. austr.

6. Oospora Harzii Sacc. Oospora cretacea Harz, Beihefte Botan. Cen- 7905

tralbl. XVIII (1905) pag. 113, non Fr. Krüg. — Subochracea; hyphis sterilibus hyalinis, 1-5  $\mu$ . cr., guttulis oleosis farctis; conidiophoris simplicibus v. e basi ramosis; conidiis plerumque globosis, 5,5-6  $\mu$ . diam., levibus.

Hab. in pariete udo cellæ vinariæ et botulariæ prope Merulium, in Germania. — In culturis conidiophora interdum fasciculata fiunt ad instar Stysani. Affinis Torulæ Sacchari Corda et Oosporæ otophilæ Harz.

7. Cospora necans Sace. et Trott. in Saccardo, Notæ Myc. VI, Ann. 7906 Myc. III (1905) p. 514 cum icon. — Cæspitulis candidis, byssinovelutinis, animalcula omnino obtegentibus; hyphis sterilibus repentibus, ramosis, intertextis, 2,7 μ. cr., continuis, minute granulosis, hyalinis; ramis fertilibus seu conidiophoris acicularibus, 12-18 × 1, basi tenuiter inflatis, solitariis v. sæpius binis-quaternis verticillatis, continuis, hyalinis; conidiis breve catenulatis, mox deciduis, oblongis, rarius ellipsoideis, 3-4 × 0,7-1, hyalinis.

Hab. in toto corpore Pemphigi bursarii, quem occidit, intra gallas ab eo formatas ad ramulos Populi nigræ, Selva Treviso, Ital. bor. — Species Augusto 1905 valde diffusa et mortem innumeris insectis modo citatis causans. Gallæ vero optime evolutæ, magnæ, numerosissimæ, a Mucedinea minime vexatæ.

8. Oospora Saccardiana Am. Berlese in Redia III (1905) fasc. I, p. 14, 7907 tab. I. — Intra corpus animalculi: mycelio nullo; cellulis saccharomycetiformibus copiosissimis, liberis, oblongo-ovoideis, sæpius utrinque acutatis v. fere apiculatis, gemmiferis, plerumque 6-7 × 2-2,5; intus initio granulosis, hyalinis. In gelatina culta: mycelio copiosissimo filiformi irregulariter ramoso, flexuoso, septato, intus granuloso, hyalino, 1,8-2,5 μ. cr.; conidiis in ramulis brevibus acrogenis breviterque catenulatis, elliptico-ovoideis 5,3-6 × 2-2,5, intus granulosis, hyalinis, episporio levi.

Hab. intra corpus Ceroplastis Rusci ex Coccidarum familia (et inde culta in laboratorio) in Italia media. — Quoad Saccharomycetes endoparasiticos in insectis cfr. supra pag. 775-785.

9. **Oospora pulmonalis** Roger, Bory et Sartory ap Sartory in Bull. 7908 Soc. Myc. Fr. (1910) p. 394 et fig. 1-13 (p. 398). — Hyphis mycelii filiformibus, hyalinis, plasmate anulatim interrupto, 0,4-0,5 μ. diam., usque 1,5 mm. long.; conidiis tarde evolutis, globulosis usque 0,9 μ. diam. hyalinis, catenulatis.

Hab. in pulmonibus hominis broncho-pneumonite affecti, Paris Galliæ. — Diagnosis ex fungillo culto.

10. **Oospora cutanea** (De Baurm., G. et V.) Sacc. *Oidium cutaneum* 7909 De Beurm., Goug. et Vauch. Les nouv. mycoses. p. 52, f. 4 (1910). Primum saccharomycetoidea, dein in culturis mucedinea velutina alba; hyphis filiformibus septatis, irregulariter ramulosis; ramulis in conidia catenulata globoso-ellipsoidea, subinde breviter conoidea abeuntibus; conidio supremo interdum ampliore.

Hab. in ulceribus cutaneis hominis, rarius, in Gallia. — An forma Oosporæ lactis?

11. Oospora subtilis (R. Blanchard) Sacc., Oidium subtile R. Blan-7910 chard ap. Guéguen, Champ. paras. pag. 244 (1904). — Mycelio repente; conidiophoris erectis, parallele fasciculatis, erectis, 6 μ. cr., dichotomis, septatis; conidiis ovoideo-oblongis v. subcylindricis, catenulatis, dein dilabentibus.

Hab. in ulcere fæminæ, in qua plagulas albas efficiebat, in Gallia. — Cuniculis pathogena.

12. Oospora mycetomatis Nicolle et Pinoy, C. R. Ac. d. Sc. Paris, 7911 CXLIV (1907) p. 397. — Cæspitulis subglobosis, endogenis, ex hyphis septatis, ramosis, floccosis formatis denique centro cavis; hyphis peripherice sæpe chlamydosporipheris et in catenulas conidiorum v. in conidia subsolitaria, 2-2,5 μ. diam. flavo-viridula abeuntibus.

Hab. intra pedem ægrum deformatum mulieris (ut in mycetomate) in Tunisia

13. Oospora lingualis Guéguen, Bull. Soc. Myc. Fr. XXV (1908) 7912 p. LXXVII (nomen nudum).

Hab. in lingua hominis morbo nigro affecta, in Gallia.

14. Oospora bogoriensis-rubra (E. de Kruyff) Sacc. et Trott., Torula 7918 bogoriensis-rubra E. de Kruyff, Ann. Jard. bot. Buitenzorg, ser. II, Supp. 3 (1910) p. 93. (Notæ plerumque chemico-biologicæ).

Hab. ex solutione mannitis in terram horti bot. Buitenzorg Javæ infusa. Fermentationes peculiares inducit.

FUSIDIUM Link — Syll. IV p. 25, X p. 515, XI p. 589, XIV p. 1040, XVIII p. 504.

Fusidium Mæsæ P. Henn., Engl. Jahrb. XXXVIII (1905) p. 117. 7914
 Late effusum, pallidum v. subcinereum, hyphis filiformibus, septatis, subramosis, hyalinis, 2-3 μ. cr.; conidiis concatenatis, fusoideis v. clavatis, hyalinis, 5-10 v 2-2,5.

Hab. in foliis Mæsæ lanceolatæ, Ost Usambara Africæ trop. (ZIMMERMANN).

Fusidium Betæ Rabenh., ex Thümen, Boll. Soc. Adriat. Sc. Nat. 7915
 Trieste III (1877) p. 440; Lindau, in Rabenhorst Kryptog.-Fl.
 Hyphomyc. p. 69. (Nomen nudum).

Hab. in pagina inferiore Betæ vulgaris, in Istria.

3. Fusidium dendriticum Riess, in Eisenach Uebersicht d. bisher in 7916 d. Umg. v. Cassel beob. Pilze, Cassel (1878); Lindau, in Rabenh. Krypt.-Fl. Hyphomyc. p. 69. (Nomen nudum).

Hab in Corticio comedente, Cassel Germaniæ.

4. Fusidium virens Dillm. (?), Sauter, Mittheil. d. Gesell. f. Salzb. 7917 Landesk. XVIII (1879) p. 28, extr.; Lindau, in Rabenh. Kryptog.-Fl. Hyphomyc. p. 69. (Nomen nudum).

Hab. in foliis quercinis et fagineis in Salisburgia (Sтоксн).

- Verisimiliter est Cylindrium flavo-virens (Ditm.) Bon.

5. Fusidium Behenis Thüm., VII Ber. d. Bot. Ver. zu Landshut 7918 (1879) p. 182; F. Mæhringiæ Thüm., l. c.; F. Potentillæ Thüm., l. c.; F. Leonuri Thüm., l. c.; F. Hieracii Thüm., l. c. — Species hæ v. ex genere Fusidii excludendæ v. omnino indescriptæ et incognitæ manent. Cfr. Lindau, Deut. Krypt. Fl. Pilze VIII, p. 69.

MONILIA Pers. — Syll. IV p. 31, X p. 516, XI p. 589, XIV p. 1041, XVI p. 1025, XVIII p. 501.

 Monilia Corni Reade Ann. Mycol. VI (1908) p. 113. — Conidiis 7919 (chlamydosporis) ellipsoideis, 9-13 × 6-8, continuis, hyalinis, catenulatis, disjunctoribus præditis, in maculis effusis, albido-cinereis, pulvereis.

Hab. in foliis Corni circinatæ in silvis Ithaca N. Y. Amer. bor. — Status ascophorus adhuc ignotus (Sclerotinia Corni Reade

loc. cit. ad inter.).

 Monilia Amelanchieris Reade, Ann. Mycol. VI (1908) p. 144. — 7920
 Conidiis (chlamydosporis) limoniformibus, continuis, hyalinis, 14-23 ≈ 10-14, catenulatis, disjunctoribus præditis, in maculis effusis, albido-cinereis, pulvereis.

Hab. in fructibus Amelanchieris canadensis, Junius et Malloryville, Am. Botryapii, Junius N. Y. Amer. bor. — Status ascophorus adhuc ignotus (Sclerotinia Amelanchieris Reade 1. c. ad interim).

- 3. Monilia Vaccinii-corymbosi Reade, Ann. Mycol. VI (1908) p. 109. 7921 Cfr. Sclerotinia Vaccinii-corymbosi Reade, supra p. 639.
- 4. Monilia Seaveri Reade, Ann. Mycol. VI (1908) p. 112. Cfr. Scle-7922 rotinia Seaveri Reade, supra p. 638.

- 5. Monilia Polycodontis Reade, Ann. Mycol. VI (1908) p. 110. Cfr. 7928 Sclerotinia Polycodontis, Reade, supra p. 639.
- 6. Monilia rosella Mac Alp. Fung. Dis. Citrus p. 76, t. 14, f. 11-12 7924 (1899). Effusa, pallide rosea, 5-7 mm. lata, initio cuticula leviter elevata tecta, dein libera; hyphis sterilibus hyalinis, coacervatis vero rubellis, dense fasciculatis, intricatis, septatis, valde ramosis, crassitudine varia, 6-15 μ.; hyphis fertilibus septatis, parce ramosis, 2-3 μ. circ. crass.; conidiis catenulatis, facile secedentibus, ellipsoideis, 6-9 × 3-4, ex hyalino flavidis.

Hab. in fructibus putrescentibus Citri Limonis, Stawell, Victoria, Australia.

- Monilia humicola Oud. Syll. XVIII, pag. 503 var. brunnea 7925
   A. L. Smith, Trans. Brit. Mycol. Soc. 1908 III (1909) p. 120.
  - A typo recedit imprimis colore læte brunneo.

Hab. in ligno putrescente betulino, Divach Wood, Inverness Britanniæ.

8. Monilia Avenæ Peck, Bull. Torr. Bot. Club XXXIII (1906) p. 219. 7926 — Minuta, amphigena; hyphis brevibus, circ. 8 μ. cr., in maculis oblongo-ellipticis, indefinitis, pallidis v. brunneolis sparse insertis, cinereis v. cinereo-brunneis; conidiis catenulatis oblongis v. ellipsoideis, leviter coloratis, 25-40 × 12-15.

Hab. in foliis vivis v. languidis Avenæsp. silvaticæ prope Los Gatos Californiæ (A. A. HELLER). — Species noxia.

9. Monilia Arnoldi Mang. et Pat., Bull. Soc. Mycol. Fr. XXIV (1908) 7927 pag. 164, cum icon. — Hyphis repentibus laxe intricatis stratum byssino-floccosum efformantibus, septatis, hyalinis, cylindraceis 1-3,5 cr., apice assurgentibus, (10-20 μ. altis, 3,5 μ. cr., continuis concoloribus, vage et parce ramosis, in catenam conidiorum (usque ad 30) desinentibus; conidiis subgloboso-citriformibus, episporio verrucis obtusis parce obsito, fusco-umbrinis (theobrominis) isthmis brevissimis inter se junctis, 6-7 μ. raro 5-8.

Hab. in caryopsibus Tritici sativi vulgo latouang dictis in Algeria (Arnold). — In culturis cæspituli hemisphærici plus minusve expansi (usque ad 5 mm.), albo-nivei, ex filamentis sterilibus hyalinis compositi, hinc inde sparsi, constanter adsunt. Status coremioideus non infrequens.

Monilia ? dendrorrhoa (Ludw.) Sacc. et Trav. — Syll. XX, p. 103 7928
 — Rhodomyces dendrorrhous Ludw. in Rev. Myc. 18 (1896) p. 115,
 t. 164, f. 1-2. — Fluxum arborum rubro-tingens; hyphis cylindraceis parce ramosis; catenulis brevibus brevissimeque ramulosis,

torulosis; conidiis ellipsoideis, intus minute granulosis, levibus, hyalinis.

Hab. in fluxu mucoso arborum in Germania. — Conidia secedendo facile ad instar Saccharomycetum germinant. — Ex ipso

auctore stirps ambigua.

11. Monilia albo-lutea Secretan, Mycogr. suisse, III p. 547, Fayod 7929 in Ann. Sc. Nat. Botan. (1885) p. 38, t. 2, fig. 13-18. — Effusa, ex albo lutescens; conidiophoris assurgentibus cylindricis 20-30 μ. cr., septatis, ex hyphis mycelicis repentibus multo tenuioribus euatis; apice subverticillato-ramosis, ramis patentibus, basi 1-septatis sursum in catenulas conidiorum 3-6 divergentes digestis; conidiis plerumque tantum binis superimpositis, isthmo longiusculo angusto separatis, ovoideis, levibus, 15 × 12, e flavido aurantiis.

Hab. in pileis Lactarii vellerei in Helvetia (SECRETAN) et pr. Esslingen Germaniæ (FAYOD). — Teste Fayod inter mycelii hyphas evolvuntur sclerotia versiformia oblonga, lobata, globulosa, rubro-aurantia 0,5-1,5 cm. longa, ex quibus ortum duceret Peziza mycetophila Fayod, nunc Sclerotinia mycetophila (Fayod) Vuill. — Syll. X, p. 6.

12. Monilia ? Formicarum Speg., Myc. Argent. V, p. 414, in Anal. 7930 Mus. Nac. Buenos Aires XX (1910). — Late effusa gossypinula tenuissima candida; hyphis sterilibus repentibus elongatis gracilibus 4-6 μ. diam., laxe septulatis, simplicibus v. fasciculato-subverticillatis, 30-40 × 4-5; conidiis ad apicem ramorum fertilium in catenulas 3-5-meras digestis, acrogenis, subglobosis v. limoniformibus, 8-12 μ. diam., sæpius grosse 1-guttulatis, hyalinis, levibus.

Hab. ad frustula vegetabilia fermentescentia in nidis Attæ histricis, in hortis La Plata Argentina Amer. austr.

13. Monilia entomophila Sacc., in Ann. Mycol. X (1912) p. 320. — 7931 Laxe effusa, tenuissime byssina, initio ex albo isabellina, demum dilute olivacea; hyphis sterilibus prælongis, laxe intricatis, subdecumbentibus, filiformibus, septatis, 2-4 μ. cr., diu hyalinis, fertilibus assurgentibus 300-350 × 3-4, basim versus interdum usque ad 5 μ. cr. et sæpe saturatioribus, non raro in fasciculos laxe approximatis, sursum irregulariter iterato ramosis, septatis, apicibus acutiusculis v. obtusulis 2-3-denticulatis; conidiis e globoso ellipsoideis, plus minus longe catenulatis, utrinque demum subapiculatis, 4-6 × 3-4, primo subhyalinis, dein flavo-olivascentibus, continuis, levibus, eguttulatis.

Hah in Vesna (Poliste) gallica, quam forte necat, domi, Pa-

tavii Ital. bor. — Occupat superficiem corporis fere totius, sed mycelium pro certo ab interiore procedit. Ramuli ultimi sæpius terni, mox secedunt, elongantur et pseudoconidia tereti-fusoidea, continua v. 1-3-septata,  $10-15 \approx 4$ , nonnumquam usque ad 30  $\mu$ . longa fingunt. Habitus fungilli fere Botrytum entomophilarum, sed ob conidia, catenulata et ramulos ultimos sæpe sporomorphos potius Moniliæ species.

14. Monilia erubescens (Ascher) Guég. Champ. paras. p. 244 (1904), 7932 Rhodomyces erubescens Ascher in Zeitschr. f. Hygiene XXXIV (1900) p. 475 — Syll. XVIII p. 504 (nomen). — Hyphis mycelii septatis; ramis in conidia minuta, subglobosa vel ovoidea, 4 μ. diam., catenulata et mox dilabentia abeuntibus.

Hab. in fœtu Caviæ Cobayæ in qua exsudatum flavidum inducit, in Germania. — Species imperfecte cognita.

#### Appendix ad gen. Moniliam.

PSEUDOMONILIA Geiger, Centralbl. f. Bakter. etc. II Abt., Bd. 27 (1910) p. 135 (Etym. pseudes falsus et Monilia). - Cæspituli (coloniæ) monilioidei, sed conidia nulla observata, hinc genus omnino dubium. Fungus initio gemmaceus, postremo ex hyphis mycelialibus longis, parce septatis non raro cellulas giganteas generantibus formatus. Quoad notas peculiares generis et specierum, imprimis chemico-physiologicas cfr. Auct. l. c.

1. Pseudomonilia albo-marginata Geiger, l. c. p. 135.

Hab. (culta) in gelatina in Germania.

Pseudomonilia rubescens Geiger, l. c. p. 135.
 Hab. (culta) in gelatina in Germania.

3. Pseudomonilia mesenterica Geiger, l. c. p. 135.

Hab. (culta) in gelatina in Germania.

4. Pseudomonilia cartilaginosa Geiger, l. c. p. 135.

Hab. (culta) in gelatina in Germania.

MONILIOPSIS Ruhl., Arb. k. biol. Anst. f. Land- u. Forstwirth. VI (1908) Heft I, p. 76 et in Lindau in Kryptog. Fl. Deutsch. IX, pag. 723, cum icone (Etym. a Monilia, quam simulat). — Mycelium pluricellulare, cellulis fibulatis nullis, arachnoideum, repens, rapide evolutum, sursum catenas ramosas, monilioideas conidiorum gerens; conidia (rectius pseudoconidia) numquam secedentia (et cito emorientia) irregulariter ovoidea, continua, hyalina dein

fuscescentia. Pseudosclerotia e cellulis pseudoconidialibus vacuis orientia. — Genus omnino ambiguum.

Moniliopsis Aderholdi Ruhl. l. c. — Catenulis brevibus ramosis, 7987 conidiophoro septato, angustiore suffultis; pseudo-conidiis ovoideis v. angulosis v. breviter ampullaceis, majusculis, 15-30 × 11-17, intus reticulato-granulosis, levibus, primo hyalinis dein brunnescentibus; pseudosclerotiis 1-3 mm. diam.

Hab. ad plantulas varias ex seminarii hortulanorum eductas, quas maxime vexat; valde frequens in Germania.

**CYLINDRIUM** Bon. Syll. IV p. 36, X p. 518, XI p. 589, XVI p. 1026, XVIII p. 504.

1. Cylindrium strobilinum Sacc., in Ann. Mycol. X (1912) p. 313. — 7938 Cæspitulis effusis, compactiusculis, coriacellis, candidis, maculiformibus; basi sporigera tenui, minute cellulosa; catenis conidiorum dense fasciculatis, bacillaribus, non ramosis, rectis, 90-100 × 3-4, hyalinis, multi-articulatis, in fragmenta 15-25 μ. longa, 2-3-septata facile secedentibus, articulis singulis 7 μ. longis.

Hab. in squamis strobilorum Pini resinosæ Lyndonville N. Y. Amer. bor. (FAIRMAN). — A Cylindrio pulvinulato Karst. distinguitur conidiorum catenis crassioribus, nunquam flexuosis, minus stipatis, loco etc.

**POLYSCYTALUM** Riess — Syll. IV p. 38, X p. 519, XIV p. 1040, XVIII p. 507.

1. Polyscytalum Bomplandii Speg. Myc. Argent. V, p. 414, in Anal. 7939 Mus. Nac. Buenos Aires XX (1910). — Maculis repando-difformibus subdeterminatis 2-5 mm. diam., sordide fusco-cinerescentibus, areola angusta purpurascenti limitatis; cæspitulis subpulverulentis hypophyllis confertis, candidis, pusillis; conidiis cylindraceis v. lenissime subfusoideis utrinque truncatis,  $10-22 \times 2,5-3$ , continuis, levibus, hyalinis, catenulatis.

Hab. ad folia languida Iresines argentatæ in silvis pr. Bompland Argentina Amer. austr. (P. Joegensen).

### GEOTRICHUM Link - Syll. IV, p. 36, XI p. 589.

Geotrichum coccophilum Speg., Fungi Paulist. Rev. Mus. La Plata 7940
 XV, p. 43 (1908). — Pulvinulis hemisphæricis, tenerrimis, tactu mox fatiscentibus 1-5 mm. diam., 0,5-1,5 mm. cr.; conidiis cylin-

draceis utrinque truncatis  $5-10 \approx 2.5$  eguttulatis, levibus, dense ramulose catenulatis, hyalinis.

Hab. ad Coccos emortuos in foliis Cycadis revolutæ in Horto botanico Sao Paulo Brasilia (USTERI). — Species formæ phytogenæ G. candidi Lk. simillima, conidiis tamen majoribus distincta.

- OlDIUM Link Syll. IV p. 40, X p. 520, XIV p. 1041, XVI p. 1025, XVIII p. 505.
- Oidium Clematidis (Chittend.) Sacc. et Trav. Syll. XX, p. 212 7941
   Ovularia Clematidis Chittenden, Gard. Chron. (1903) p. 299,
   Cooke Fung. Pests p. 20, fig. 4, Salmon in Journ. of Bot. (1905) pag. 42, t. 469, f. 2. Cæspitulis epipetalis, albis, conspicuis, subcircularibus, 2-4 cm. lat.; hyphis sterilibus repentibus, hyalinis, ramosis; conidiophoris erectis, simplicibus 40-60 × 7, bi-triseptatis, apice in conidia breviter catenulata v. solitaria, cylindracea, utrinque rotundata, 28-42 × 14-16, levia abeuntibus.

Hab. in pag. sup. petalorum Clematidis sp. prob. Clem. Jackmanni, Chelmsford Britannia. — Ex icone evidentissime Oidii species.

2. Oidium Cratægi Grogn. in Roum. F. gall. n. 881, Oudem. Nederl. 7942 Kruidk. Arch. II, ser. II, p. 301 (1900). — Mycelii hyphis repentibus, effusis; conidiorum catenulis erectis, cellulis inferioribus cohærentibus, superioribus facile solutis; conidiis ellipsoideis, rotundatis, hyalinis, 23 × 12.

Hab. in foliis Cratægi monogynæ in Hollandia, Gallia, sæpe cum ejus status ascophoro: Podosphæra Oxyacanthæ.

3. Oidium macrospermum P. Henn., in Fl. du Bas- et Moy.-Congo, 7948 in Ann. Mus. du Congo vol. II, fasc. III (1908) p. 230. — Cæspitulis hypophyllis late effusis, albidis, hyphis septatis, hyalinis, 3-7  $\mu$  crassis; conidiis catenulatis oblongo-cylindraceis v. clavatis, utrinque rotundatis, hyalinis, intus granulosis, 50-80  $\approx$  15-20.

Hab. in foliis Leguminosæ sp., Kisantu Congo, Africa (VANDERYST).

4. Oidium quercinum Thümen — Syll. IV, p. 44 — var. gemmiparum 7944 Ferraris, Ann. Mycol. VII (1909) p. 69, cum tab. I, Oidium alphitodes Griff. et Maubl. Bull. Soc. Mycol. Fr. (1910) p. 137. — A typo differre videtur cæspitulis compactis et persistentibus, conidiophoris typice septatis et præcipue hyphis sterilibus gemmulas subconicas apice incrassatas 9,5-12 μ. diam. sursum gerentibus. Syll. fung. XXII (VI-1918)

Hab. in foliis vivis Quercus Cerris, pedunculatæ, sessilifloræ, pubescentis, Ilicis, Suberis, Tozzæ, cocciferæ etc., raro in foliis Q. rubræ et palustris, in tota fere Europa, quam ab anno 1907 incredibili vi expansionis longe lateque parvasit. — Cfr. Sacc. in Ann. Mycol. VI (1908) p. 557 et VIII (1910) p. 345.

5. Oidium Cyparissiæ Syd. — Syll. XIV p. 1041 — var. Euphor-7945 biæ-Preslii Massal. Nov. Fl. mycol. Veron. p. 52 (1902). — Conidiis utrinque subtruncato-rotundatis, plerumque 20-35 × 10-15.

Hab. ad folia, caules, fructus Euphorbiæ Preslii, Tre-

gnago, Verona Ital. bor.

6. Oidium Manihotis P. Henn., in Fl. du Bas- et Moy.-Congo, in <sup>7946</sup> Ann. Mus. du Congo vol. II, fasc. III (1908) p. 230. — Cæspitulis epiphyllis late effusis, albidis; hyphis septatis varie crassis, hyalinis; conidiis ellipsoideo-cylindraceis, utrinque obtusis, intus pluriguttulatis, hyalinis, 16-24 × 9-13.

Hab. in foliis Manihotis, Kisantu Congo, Afr. (VANDERYST).

7. Oidium erysiphoides Fr. — Syll. IV, p. 41 — fm. Cordiæ Sacc. 7947 Ann. Mycol. VIII (1910) p. 339.

Hab. in foliis Cordiæ suboppositæ, Nefasit a Maha-bar, alt. 1600 m. (Hamasen). — Socium adest Cladosporium (Demat.) pullulans. — Fm. Cassiæ Sacc., l. c. — In foliis Cassiæ occidentalis, Ghinda-Baresa alt. 830 m. (Hamasen).

- 8. Oidium fusisporioides Fr., Syst. Myc. III, p. 431. Recte obser-7948 vante cl. Lindau, Deutsch. Krypt. Fl. Pilze VIII, p. 88 complectitur plures Ovulariæ et Ramulariæ species.
- 9. Oidium Anthemidis Thüm., in VII Ber. des Bot. Ver. zu Lands-7949 hut (1878-1879), (nomen nudum), Lindau, l. c. p. 88.

Hab. in Anthemide tinctoria in Austria.

10. Oidium Leuckarti H. Hoffm., Hedwigia I (1857) p. 119, tab. 16 7950 pr. p. 22-27. — Hyphis sterilibus parce ramosis; ramulis in catenulas conidiorum, dein secedentium abeuntibus; conidiis e globoso ellipsoideis, utrinque rotundatis v. subinde obtusatis, in quaque catenula plurimis, hyalinis, intus sæpe granulosis, levibus, 18 × 11.

Hab. in ventriculo chymifico Apis mellificæ ægrotæ in Germania (Leuckart). — Ex ipso auctore status conidicus seu gemmifer Mucoris melittophthori.

11. Oidium botryoides Ces. in Kl. Herb. viv. mycol. n. 1671, Bot. 7951

Zeit. (1852) pag. 302. — Ab Oid. monilioide et O. leucoconio diversum.

Hab. in foliis Spirææ Ulmariæ in agro Vercellensi Ital. bor. — Verisimiliter st. conidiophorus Erysiphaceæ, forte Sphærothecæ.

12. Oidium opuntiæforme Ces., in Kl. Herb. Mycol. n. 1672, Bot. 7952 Zeit. (1852) p. 302 et Flora (1852) p. 398. — Filis ramosis, articulis obovatis proliferis, opuntiæformibus; conidiis minutissimis olivaceis.

Hab. in summo surculo foliisque, ab apice ad basin progrediendo, Jungermanniarum in Helvetia italica et Biella Pedemontii. — Ex Tulasne probabiliter sistit non fungum sed gemmulas muscorum.

13. Oidium velutinum Ces., in Kl. Herb. viv. mycol. n. 1670, Bot. 7958 Zeitung (1852) p. 302. — Obscure virens; conidiis inæqualibus oblongis, minutis ex hypha pedicellari brevi deciduis.

Hab. in foliis Æcidio obtectis, Euphorbiæ Cyperissiæ in agro Vercellensi Ital. bor. — Cl. Lindau in Deut. Krypt. Fl. VIII, p. 88 in exemplari l. c. observavit conidia bicellularia, subhyalina, an Fusicladii fasciculati?

SPERMATOLONCHA Speg., Anal. Mus. Nac. Buenos Aires t. XVII (1908) p. 139. (Etym. sperma spora et lonche lancea) — Hyphæ tenues hyalinæ septulatæ, steriles repentes, fertiles erectæ apice subcapitatæ pedicellis simplicibus v. duplicatis ornatæ; conidia in pedicellis pleurogena alterna, elongato-lanceolata, hyalina.

1. Spermatoloncha maticola Speg., l. c. p. 139 cum icon. — Hyphis 7954 sterilibus subiculo Meliolæ arcte adnatis, tenuibus, 4-5 μ. diam., obsolete septulatis, flexuosis, dense intertexto-intricatis; hyphis fertilibus erectis 80 × 4-6, subcontinuis apice modice incrassatis; pedicelli primariis ellipsoideis 10-15 × 4-5, secundariis subglobosis 5-6 μ. diam.; conidiis sursum attenuato-acutissimis postice rotundatis, 35 × 6, minute pedicellatis, papillatis.

Hab. in Meliola parasitans ad folia viva Ilicis paraguariensis secus rivulum «Matto Queimado» Misiones in Rep. Argentina.

BOTRYOSPORIUM Corda — Syll. IV p. 54, XIV p. 1043, XVI p. 1026, XVIII p. 510.

- 1. Botryosporium diffusum (Grev.) Corda Syll. IV pag. 55. 7955 Huc pertinet *Peylia racemosa* Opiz in Peyl, Lotos VII (1857) p. 26, fig. 1.
- CEPHALOSPORIUM Corda Syll. IV p. 56, X p. 523, XI p. 591, XIV p. 1043, XVIII p. 510.
- 1. Cephalosporium macrosporum Rivolta, Parass. veget. delle malattie 7956 ecc. p. 491, t. 7, fig. 206. Entomogenum, albidum; hyphis sterilibus laxe septatis et varia crassitudine, subinde subfasciculatis et contortis; ramulis fertilibus simplicibus v. furcatis nunc sparsis, nunc approximatis; conidiis ellipsoideis, levibus, hyalinis.

Hab. in corpore Locustæ sp. in vase servatæ in Italia cent. Frequens dicitur etiam in fæno. — Ob conidia (ex icone) solitarie acrogena videtur potius Acremonii species.

2. Cephalosporium subsessile Sacc., in Ann. Mycol VIII (1910) 7957 pag. 345. — Hyphis late effusis, mucedineis, hyalinis, coacervatis violascentibus (culturâ) parce ramosis, varie intricatis, rectis curvul sve, plerumque dense regulariter 1-seriato-guttulatis (quasi endogeno-sporuliferis), 4 μ. cr., remotiuscule septatis, ramulis tenuioribus, 2-3 μ. cr., laxius guttulatis sæpe subtortuosis, hine inde papillas raras conidiophoras, vix 1-3 μ. altas gerentibus; conidiis 4-6-fasciculato-capitatis, tereti-olongis, utrinque rotundatis, continuis, hyalinis, intus nubilosis, sæpius leniter curvis, 10-14 × 3, rarius 14 × 3, diu cohærentibus et capitulum ellipsoideum formantibus.

Hab. in foliis Cymbidii aliarumque Orchidearum exoticarum in calidariis horti botan. Heidelberg Germaniæ. — Promiscue cum Fusario heidelbergensi — Speciem descripsi sec exempl. culta in gelosio a cl. G. Seliber in Instituto paris. Pasteur. Pro certo est forma metagenetica dicti Fusarii, ab aliis generis speciebus capitulis subsessilibus distinguenda. Analogam formam cum Fusario suo, ad Neocosmosporam ducendam, descripsit E. F. Smith (Wilt disease of Cotton, Watermelon and Cowpea in U. S. Dep. of Agricult. Bull. N. 17, Div. Veg. Phys. and Path. Washingt., 1899) nec non E. J. Butler. (The Wilt disease of Pigeon-pea in Mem. of the Depart. of Agricult. in India, Bot. Ser. vol. II n. 9, Calcutta, 1910).

BUSEELLA P. Henn. - Syll. XVIII p. 509.

1. Buseella Capparidis P. Henn., Engl. Jahrb. XXXVIII (1905) pag. 7958

128. — Maculis rotundatis epiphyllis, fuscidulis; cæspitulis radiatis, hyphis sterilibus hyalinis septatis, 3-4,5  $\mu$ . cr., hyphis fertilibus erectis, basi sæpe fasciculatis, incrassatis, septatis, hyalinis v. fuscidulis, c. 200-300 × 15-25, apice vix incrassatis; conidii, ovoideis v. ellipsoideo-lunulatis, obtusis, viridi-guttulatis, levibus, 20-25 × 15-20; conidiophoris subfusoideis interdum inflatis, usque ad 15 × 8.

Hab. in foliis Capparidis, Lome Togo Africæ (WARNECKE).
B. Stuhlmanni affinis sed diversa.

### HYALOPUS Corda — Syll. IV p. 51, XIV p. 1042.

1. Hyalopus Yvonis P. Dop in Bull. Scient. Fr. et Belg. XXXIX 7959 (1905) p. 135, Rev. Mycol. (1906) p. 18, t. 260, f. 13-15. — Mycelio hyalino, non septato, repente, parco, caspitulos griseos efficiente; conidiophoris erectis, non septatis, simplicibus, capitulo conidiorum globoso nucilagineo terminatis; conidiis oblongis, hyalinis 4 × 1-1,5, dein conglomeratis, facile germinantibus.

Hab. in scutellis Aspidioti ancyli vel Forbesii aff. ad folia Cocoës nuciferæ in insule Martinica (Saint-Yves).

RADAISIELLA Bainier, Bull. Soc. Mycol. Fr. (1910) p. 382, tab. XX (Etym. a cl. M. Radais Cryptogamiæ prof. parisiensi) — Mycelium effusum, ramosum, hyalinum, septatum. Conidiophora assurgentia, filiformia, inter se approximata, et cæspites formanta, septata sursum ramulos sporigeros patulos, crebros, indivisos, racemum longum formantes gignentia; ramuli apice inflati ibique dein 3-4-lobulati; lobulis capitato-sporigeris. Conidia ovato-oblonga, continua, hyalina. — A gen. Botryosporio differt hypha primaria simplici et conidiophororum apice plurilobulato.

Radaisiella elegans Bain. l. c. t. XX — Cæspitulis densiusculis, floccosis, albis, usque 1 cm. alt.; hypha primaria 11 μ. cr.; ramulis 100-106 μ. longis, æqualibus 3 μ. cr.; lobulis 18-20 × 10-11, ipsis in lobulos minores subternos rotundatos partitis; conidiis in his lobulis minoribus sessilibus, capitatis, breviter fusoideis, 6 × 3, hyalinis.

Hab. in foliis emortuis Musæ paradisiacæ cultæ Parisis.

# TRICHODERMA Pers. — Syll. IV p. 59, XVIII p. 512.

1. Trichoderma Corfecianum Sacc. in Ann. Mycol. XI (1911) p. 254. 7961

— Late effusam, amoene saturate virens, valutinum, margine (quia

serius evoluto) albicans; hyphis sterilious repentibus, parce septatis, usque ad 7  $\mu$ . cr., hyalinis; conidiophoris ascendentibus (non erectis) filiformibus, subcontinuis, 70-100  $\approx$  4.5-5, hyalinis, lateraliter apiceque ramosis, ramis simplicibus oppositis v. subalternis, sursum fusoideo-tenuatis, sæpius leniter curvis, apice monosporis; conidiis ovoideis, apice rotundatis, 8-11  $\approx$  4-5, rectiusculis, levibus, intus granulosis et sæpe 1-2-guttatis, contentu amæne viridi.

Hab. ad corticem Abietis in subterraneis fodinæ anthracitis, temp. usque ad 40 centigr., pr. Laval Galliæ, hieme 1910-1911 (P. Corfec). — Species egregia, habitu Trichodermatis lignorum, sed conidiophora et conidia omnino diversa.

2. Trichoderma hamatum Bainier, Bull. Soc. Myc. Fr. XXII (1906) 7962 p. 133, t. VIII, f. 8-11, an Pachybasium hamatum (Bon.) Sacc. — Syll, IV p. 149? — Cæspitulis viridibus; hyphis et conidiophoris ut in Trichodermate lignorum sed his postremis in filamenta ramosa, eximie tortuoso-hamata elongata productis; conidiis capitulatis, ovoideis, 7 × 4, viridibus.

Hab. in peridiis putrescentibus Cyathi striati in Gallia. —
3. Trichoderma minutum Bain Bull. Soc. Myc. Fr. XXII (1907) 7968
p. 133, t. VIII, f. 12-15. — Characteribus omnibus cum Tr. hamato congruit.

Hab. in pileo Paxilli atro-tomentosi in Gallia.

ASPERGILLUS Mich. — Syll. IV p. 64, X p. 524, XI p. 591, XIV p. 1044, XIV p. 1027, XVIII p. 512.

1. Aspergillus albidus Eichelb., Verh. Naturw. Ver. Hamburg. 3 7964 Folge, XIV (1906) p. 35. — Teste auctore non differt ab Asp. candido Link. St. ascophorus: (Eurotium albidum (Eich.) Sacc.) peritheciis valde nitidis, albis, hyphis albis insidentibus, habitu et magnitudine Eurotii herbariorum: ascis sat persistentibus, subglobosis, 10 μ. diam.; sporidiis hyalinis, levibus, e globoso ovoideis, 4 × 3.

Hab. in foliis Nicotianæ male exsiccatis in Laboratorio Amani Africæ orient.

2. Aspergillus Fischeri Wehmer, Centralbl. f. Bakter, II Abt. XVIII 7965 (1907) p. 390. — Affinis quoad conidiophora et conidia Aspergillo minimo et A. fumigato; conceptaculis ascigeris copiosis, albogriseis, pigmento carentibus, nudis; sporidiis ala latiuscula tenui cinctis.

Hab. in tuberibus Dahliæ variabilis in Helvetia.

3. Aspergillus gracilis Bainier, Bull. Soc. Mycol. Fr. XXIII (1907) 7966 p. 92, t. IX, f. 11-14. — Cæspitulis albis gossypinis dein margine cyanescentibus, 2-3 mm. diam., dein totis cyaneis et demum viridi-nigricantibus; conidiophoris filiformibus, tenuissimis, vix 2,8 μ. diam., raro 250 μ. long. superantibus; sursum inflato-clavatis, clava 24 μ. long., pseudobasidiis dense stipatis, oblongis, 5-6 μ. long. obtecta; conidiis diu ovoideis, demum sphæricis, circ. 3 µ. diam.

Hab. in fructu Pruni domesticæ putrescente et inde cultus, in Gallia. — E stirpe Aspergilli clavati.

4. Aspergillus gigas Speg., Myc. Arg. V, p. 434, in An. Mus. Nac. Bue- 7967 nos Aires XX (1910). — Cæspitosus maximus, testaceus; hyphis fertilibus erectis rigidulis 2-5-cespitosis, 2-3 mm. long., 20 µ. cr., simplicibus, apice abrupte in vesiculam globosam 120 µ. diam., pallidissime rufescentem minuteque papillosam productis; conidiis longissime catenulatis, globosis 5-6 µ. diam., eguttulatis, levibus v. subtilissime imperspicueque colliculosis, pallide isabellinis, capitulum sphæroideum maximum, 0,75-1 mm. diam. efficientibus.

Hab. ad folia subputrescentia Coffee arabice diu loco udo servata, La Plata Argent. Amer. austr.

5. Aspergillus virens (Link?) Eichelb., Verh. Naturw. Ver. Hamburg, 7968 3 Folge XIV (1906) p. 34. — Conidiophoris 2-2,5 mm. altis, apicem versus 25 µ. cr.; conidiis globosis, levibus, virentibus, 4, 3 u. diam.; st. ascophorus (Eurotium virens (Eich.) Sacc.): peritheciis semiglobosis, viridi-flavidis, 120 µ. diam., 90 µ. altis; ascis rotundis, octosporis, 12-13 µ. diam. sporidis sphæricis, levibus, subhyalinis, 4 µ. diam.

Hab. in stromate putrescente Xylariæ polymorphæ, rarius, Amani Africæ orient.

6. Aspergillus fumigatoides Bain. et Sart. Compt. rend. Soc. Biol. 7969 Paris, LXVI, (1909) p. 22, et Bull. Soc. Mycol. Fr. (1909) pag. 111, tab. V. - Conidiophoro cylindraceo 150-310 × 5-6, continuo, sæpe tortuoso, sursum sensim leviter incrassato; vesicula 30-35 μ. diam.; pseudobasidiis plerumque hemisphærium superum vesiculæ tantum obtegentibus, hyalinis, 8-14 µ. longis, phialiformibus; conidiis catenulatis e globoso ovoideis, 2-3 \* 2, obscure olivaceis, endogene formatis (teste auct.); status ascophorus (Eurotium fumigatoides Sacc.): peritheciis ex hyphis mycelii spiraliter convolutis oriundis, globulosis, plurimis conglomeratis, 65-92 μ. diam. excipulo 4-5-stratoso pseudoparenchymatico; ascis sphæroideis v.

ovoideis  $20-26 \times 12-18$ ; sporidiis octonis, globosis, echinulatis, 3-3,5  $\mu$ . diam, (ex icone) lineola æquatoriali percursis.

Hab. in substantiis organicis in Gallia. — Pathogenus cuniculis et cobayæ. — Ab affini A. fumigato differt conidiis potius ovoideis, præsentia peritheciorum etc.

7. Aspergillus malignus Gedæst apud Lindt Archiv. f. exper. Pathol. 7970 XXV (1889), Guég. Champ. paras. p. 166, fig. 7. — Mycelio albo, crebro, septato; conidiophoris simplicibus, erectis, 1000 μ. long., in vesiculam piriformem 22-24 μ. lat. desinentibus; pseudobasidiis, vix tertiam superiorem partem vesiculæ obtegentibus, hyalinis, 10 × 4-4,5; conidiis sphæroideis, cyaneo-viridulis, 3-4 μ. diam., in catenas longas divergentes dispositis.

Hab. in auricula hominis in Germania. — An satis diversus ab Asp. fumigato? Cuniculis pathogenus.

8. Aspergillus Foutoynonti Guéguen, Compt. rend. Soc. biol. Paris 7971 XLVI (1909) p. 1052.

Hab. in nodis juxta-articularibus hominis ægroti in Indochina et Madagascar. — Multum variat et videtur affinis Asp. Tokelau.
— In abscessibus et ulceribus occurrit tantum ut forma oosporica.

9. Aspergillus cæsiellus Saito, Untersuch. atmosph. Pilzkeime (1901) 7972 p. 49, t. III, f. 14. — Cæspitulis cæsio-cærulescentibus; hyphis sterilibus repentibus, septatis, hyalinis, 2-4 μ. cr.; conidiophoris cylindraceis, brevibus, continuis, 100-200 × 4-6, sursum in vesiculam clavatam, 12-14 μ. cr. productis; pseudobasidiis simplicibus anguste phialiformibus, 12 × 3, hyalinis; conidiis elliptico-ovoideis cærulescentibus, 7 × 4, levibus.

Hab. (cultus) in gelatina ex conidiis per aërem volitantibus in Japonia.

10. Aspergillus giganto-sulphureus Saito, Unters. atmosph. Pilzkeime 7978 (1901) p. 48, tab. III, fig. 12. — Cæspitulis floccosis, albis dein læte flavis, demum brunneolo-flavis, hyphis sterilibus 4 μ. cr., conidiophoris usque ad 1 mm. alt., 6-12 μ. cr., plerumque simplicibus, raro ramosis, parce septatis, tunica levi et solidiuscula; vesicula subglobosa v. ovata 28-32 μ. diam.; pseudobasidiis paliformibus medio leniter coarctatis 24-28 × 7 non ramosis; conidiis globosis, levibus, dein aculeolatis, majusculis, 8-12 μ. diam., sordide flavis.

Hab. (cultus) in gelatina ex conidiis per aërem volitantibus, in Japonia. — Nonnullis notis cum A. Ostiano congruit.

11. Aspergillus effusus Tiraboschi, Atti Terzo Congresso pellagrologico 7974

italiano, Milano (1906), p. 18, Ann. di Botan. VII (1908) p. 16. — Cæspitulis late effusis, candidis dein sordidis, demum luteo-viridulis; conidiophoris 150–500 × 10–12, capitulo 70-80  $\mu$ . diam.; vesicula conidigera sphæroidea, 30-40  $\mu$ . diam., pseudobasidiis crebris, indivisis, fusoideis, breviusculis et inflatis, 10-13 × 5-6, omnino tecta; conidiis globosis, levibus, hyalinis v. luteolis 4,5–7,5  $\mu$ . diam.

Hab. in caryopsidibus corruptis Zeæ Maydis in Italia (Tira-BOSCHI).

12. Aspergillus fumigatus Fres. — Syll. IV p. 65. — Var tume- 7975 scens Kral in Blumentritt, Ber. Deut. Bot. Ges. (1905) p. 422, t. 19, p. — Mycelio minutissimo, albo-flocculoso, acute limitato, centro tumescente; pseudobasidiis sæpe proligeris, cetera speciei.

Hab. (cultus) in laboratoro Kral, Prag Bohemiæ.

13. Aspergillus Oryzæ (Ahlbury) Cohn — Syll. XI p. 592. — Var. 7976 basidifer Const. et Lucet, An. Sc. Nat. sér. 9, II (1905) p. 119, tab. 5, fig. 24-26, Coup. Atl. Champ. paras., tab. XL, fig. 15-17. — Pseudobasidiis pseudosterigmata 1-2 gerentibus.

Hab. (cultus) in laboratoriis in Gallia. — Cuniculis pathogenus, non vero Gallinaceis.

14. Aspergillus viridi-griseus Costant. et Lucet An. Sc. Nat. sér. 9, 7977 II (1905) p. 119, tab. V, fig. 8-17, Coup. Atl. Champ. parasit., tab. 40, fig. 1-8. — E griseo virens; conidiophoris simplicibus v. superne furcatis, aapice in vesiculas ovoideo-sphæricas punctatas sensim dilatatis, cylindraceis, valde clongatis, septatis v. non; pseudobasidiis minutis conico-acutis; conidiis globosis levibus, viridulis, supremis paullo amplioribus, longiuscule catenulatis.

Hab. (cultus) in laboratoriis in Gallia. — Cuniculis pathogenus, non gallinaceis. — Affinis Aspergillo fumigato.

15. Aspergillus Lignieresii Const. et Lucet, An. Sc. Nat. sér. 9, II 7978 (1905) p. 119 tab. 5, fig. 18-23. — Coup. Atl. Champ. paras., tab. 38, fig. 9-14. — Hyphis sterilibus paucis, radiculiformibus; conidiophoris erectis, sæpe leviter flexuosis, cylindraceis, continuis, sursum paullo crassioribus apiceque in vesiculam ovoideam punctulatam sensim dilatatis; pseudobasidiis obclavato-acuminatis; conidiis minutis, globulosis, breviter catenulatis.

Hab. in pulmonibus Sphenisci sp. (Pinguino), Gallia. — Cuniculis et gallinaceis pathogenus.

16. Aspergillus japonicus Saito, Bot. Mag. Tokyo XX (1906) p. 61 7979 (Diagnosis desideratur).

Hab. cultus ex conidiis in aëre volitantibus, in Japonia. — Affinis Asp. luchuensi Inui; efformat cæspitulos densos, primo albos dein nigricantes.

17. Aspergillus incrassatus Spring, in Bull. Acad. roy. Belg. 19 7980 (1852) p. 558. — Est species dubia, probabiliter teratologica.

18. Aspergillus Westendorpii Sacc. et March. in Rev. Mycol VII 7981 (1885) p. 149 (absque diagnosi), Lindau Deutsch. Krypt. Fl. Pilze VIII p. 152.

Hab. in fimo vaccino in Belgio (Westendorp). — Deest in herb. meo; verisimiliter forma v. var. Asp. clavati.

19. Aspergillus Syncephalis Guég Champ. paras. p. 165 (1904) fig. 6. 7982 — Mycelio albo dein griseo, laxe intricato, 2,5-4 μ. cr.; hyphis festilibus erectis, subflexuosis, continuis, 300 ≈ 7-8 (basi), fuligineis, superne atratis, in vesiculam subsphæricam 30-35 μ. diam. inflatis; pseudobasidiis cylindraceis apice vesiculæ insertis; conidiis primo sphæricis glaucis, dein subovoideis, griseis, 3,3 ≈ 2,5, levibus, fasciculum undulatum cylindraceum 90-100 μ. altum formantibus.

Hab. in tela uda, socio Chætomio pannoso in Gallia.

- STERIGMATOCYSTIS Cram. Syll. IV p. 71, X p. 524, XI p. 593, XIV p. 1046, XVI p. 1029, XVIII 516.
- Sterigmatocystis luteo-nigra Lutz in Bull. Soc. bot. Fr. LIII 7988 (1906-1907) p. L. Hyphis sterilibus lutescentibus, fertilibus albis, plus minusve contextis, continuis; vesicula sphærica, 100 μ. diam., fusca; pseudobasidiis clavatis radiantibus 10-30 μ. long., sæpe 4 pseudosterigmata 4-6 μ. longa gerentibus; conidiis globosis 5 μ. diam., catenulatis, hyalinis, dein fuscis.

Hab. in seminibus Theobromæ Cacao fermentescentibus, Roça de Boa Entrada, San Thomé. — A Sterigm. nigra imprimis mycelio sterili aureo et fertili albo dignoscenda.

2. Sterigmatocystis dipus Ferdinands. et Winge, Botanisk Tidsskr. 7984 XXX (1910) p. 220, fig. 6. — Hyphis repentibus septatis, 4-6 μ. diam., hyalinis; fertilibus dipodibus, stricte erectis, non septatis nec ramosis, circ. 1 mm. alt. 13.18 μ. cr., membrana 2 μ. cr. præditis, superne vesiculoso-inflatis, hyalinis, capitulum conidiorum globosum fusco-nigrum, circ. 150 μ. diam. gerentibus; vesica globosa, hyalina, 40-45 μ. diam., e pseudobasidiis affiixs crebre punctata; pseudobasidiis radiantibus, cylindraceo-clavatis, 15-25 μ. long., superne 5,5-7,5 μ. cr., granuloso-farctis, fuscidulis pseudo-

sterigmatibus plerumque 3 curte bacillaribus nec non subcuboideis, 7-9  $\times$  5, concoloribus coronatis; conidiis catenulatis, inter se filamentis hyalinis, ad 5  $\mu$ . long. circ.  $^4/_2$   $\mu$ . cr. conjunctis, globosis, 7-8,5  $\mu$ . diam., fuscis, verrucis echinatis, ad 1  $\mu$ . long., hyalinis, nonnumquam deciduis ornatis.

Hab. ad fructus semiputridos Theobromæ Cacao, socia Stilbochalara dimorpha Ferd. ad Winge, prope Las Trincheras Venezuelæ (H. LASSEN).

3. Sterigmatocystis corolligena Massee, Kew Bull. (1910) p. 5. — 7985 Hyphis sterilibus effusis, repentibus; fertilibus simplicibus, erectis, apice vesiculoso-inflatis, globosis; conidiis catenulatis, pseudobasidiis verticillato-ramosis suffultis, globosis, flavidis, verrucosis, 5 6 µ. diam., capitulum sulphureum formantibus.

Hab. in corolla Impatientis sp., Manipur Indiæ (I. D. Hooker). — A Sterigm. sulphurea præcipue conidiis globosis, verrucosis dignoscitur.

4. Sterigmatocystis ochroleuca Speg., Myc. Argent. V, p. 434, in 7986 Anal. Mus. Nac. Buenos Aires XX (1910) — Cæspitulosa, tota ex albo sulphurea; hyphis fertilibus sæpius 3-8 cæspitosis, erectis simplicibus, 1-2 mm. long. 12-14 μ. cr., continuis, hyalinis, capitulo globoso compactiusculo coronatis; cellula apicali fertili globosa, 50 μ. diam, minutissime densiusculeque papillosa; pseudobasidiis cylindraceo-subclavulatis apice truncatis 25-30 × 6, pseudosterigmatibus apice rotundatis 8-10 × 2, omnibus hyalinis; conidiis globosis, 4 μ. diam., non v. grosse 1-guttulatis, catenulatis asperulis.

Hab. ad folia et caules Galii Relbun loco udo servatis, La Plata Argentina Amer. aust.

5. Sterigmatocistis insueta Bainier, Bull. Soc. Myc. Fr. XXIV 7987 (1908) p. 87 t. VIII el XVIII. — Tota fuliginea; mycelio ramosissimo, parce septato. tortuoso; conidiophoris filiformibus simplicibus, continuis, concoloribus apice in vesiculam subglobosam, levem, 11-16 μ. diam. desinentibus; pseudobasidiis breviter cylindraceis obtusis 8 × 5, pseudosterigmatibus verticillatoternis phialiformibus; conidiis longiuscule catenulatis, globosis, demum muriculatis, fuligineis, 5 μ. diam.

Hab. in seminibus v. fructibus Galii Aparines germinantibus in Gallia — Conferenda cum aliis generis speciebus phæocephalis.

6. Sterigmatocystis ochracea (Wilhelm) Schröt. — Syll. X p. 527. 7988 — Var. microspora Tiraboschi, Ann. di Botanica VII (1908)

p. 14 (Asperg.). — Cæspitulis luteo-brunneis; conidiophoris luteis, 0,5-1,5 mm. long., 7-12 μ. cr., membrana crassiuscula verruculosa; vesicula subhyalina v. lutea, sphæroidea, 30-40 μ. diam.; pseudobasidiis subhyalinis v. pallide luteis inverse conoideis, 20-32 × 5-9, pseudosterigmatibus (3-5) 8-10 × 3-3,5; conidiis globosis v. ovoideis hyalinis v. luteolis, levibus, plerumque 3-3,5 μ. diam.

Hab. in pane zeino nec non in caryopsidibus corruptis Zeæ Maydis in Italia (Тівавоссні).

7. Sterigmatocystis bicolor J. Ray, Variat. Champ. infér. pag. 53 7989 (Rev. génér. Bot.). — Mycelio albo-roseo, hypostromate ochraceo suffulto; hypha primaria, non septata, vesicula parva terminata; pseudobasidiis crebris, globulosis, pigmento rubro farctis, æque ac vasicula; pseudosterigmatibus brevibus; conidiis, globosis, spinulosis, viridibus, 2,5 μ. diam.

Hab. in radice Dauci Carotæ vitiata in laboratorio, Paris Galliæ.

8. Sterigmatocystis quercina Bain. in Bull. Soc. bot. Fr. (1881), Sartory in Bull. Soc. Myc. Fr. XXVI (1910) p. 352 cum icone sclerotii. — E fiavo lignicolor (ligni quercini colore) 1 cm. alta; mycelio ramoso haustoriis prædito; conidiophoris 20 μ. cr.; capitulo 88 μ. diam.; ramulis sporiferis primariis et secundariis circ. 10 μ. longis; conidiis globosis, levibus, 4-4,3 μ. diam.,; sclerotiis subglobosis, flavo-paleaceis 0,5 cm. latis.

Hab. in subtantiis organicis in Gallia. — In mediis variis culta optime evolvitur.

9. Sterigmatocystis alba (Wilhelm) Sacc. — Aspergillus albus Wilhelm 7991 Beitr. Kenntuiss Pilze, Asperg. p. 68, (1893) Wehmer Asperg. p. 97. — Cæspitulis albis; conidiophoris 0,5 mm. altis; hyalinis, levibus, 7 μ. cr., tunica crassa præditis; vesicula globosa usque ad 30 μ. diam.; pseudobasidiis ramosis; conidiis globosis, levibus, hyalinis, 2,7-3,5 μ. d., in catenulas longas parsistenter dispositis.

Hab. in pane mucido pr. Strassburg (WILHELM) et pr. Breslau (BANDMANN). — An hujus speciei synonyma sint Aspergillus candidus Mich., A. albus Hall. Monilia albicans Pers. omnino dubium.

10. Sterigmatocystis pseudo-flava (Saito) Sacc. — Aspergillus pseudo-7992 flavus Saito in Centralbl. f. Bakter. II Abt. 18 (1907) p. 34, tab. II, fig. 15-18. — Ab affini Aspergillo flavo Bref. imprimis pseudosterigmatibus plerumque compositis diversa; in culturis polychroma: in substantiis carbonio-hydratis flavo-virens vel atro-

virens, in peptonicis pallide v. saturate flava; conidiophoris 1-2 mm. long., 15  $\mu$ . cr., tunica 1-2  $\mu$ . cr.; vesicula 35-50  $\mu$ . lata, pseudobasidiis 15  $\approx$  7; pseudosterigmatibus 4  $\approx$  1,2, conidiis plerumque 6-7  $\mu$ . diam., minute verrucosis, flavidis.

Hab. (culta) in Batata (Koji) in Japonia — Aspergillo Ostiano quoque proxima.

11. Sterigmatocystis Batatæ (Saito) Sacc. — Aspergillus Batatæ 7998 Saito, Centralblatt f. Bakter. II Abteil., XVIII (1907) p. 31, t. I-II, f. 1-14. — Sterigmatocysti nigræ affinis tam pseudobasidis compositis, quam conidis similibus, licet paullo majoribus; cæspitulis initio albis, dein fulvescentibus v. viridi-flavis, denique atro-brunneis; pseudobasidiis 24-40 × 8; pseudosterigmatibus 10 × 3,2; conidiis 4-5 μ. diam., levibus, brunneolis.

Hab. (culta) in Batata (Koji) in Japonia. — Quoad notas bio-chemicas cfr. l. c.

12. Sterigmatocystis Okazakii (Saito) Sacc. — Aspergillus Okazakii 7994 Saito in Yagi, Centralbl. f. Bakter. Abteil., 19 (1907) p. 481, tab. 1-2. — Cæspitulis niveis, dein sulphureis; hyphis sterilibus repentibus, 2-4 μ. cr.; conidiophoris hyalinis, rectis v. curvis, crasse tunicatis, levibus v. asperulis, 200-500 × 8-12, tunica 2-3 μ. cr.; vesicula globosa 12-40 μ. diam., ubique pseudobasidiis clavatis 15-20 × 6-8 dense obducta, pseudosterigmatibus plerumque quaternis, 8-14 × 3,6; conidiis globosis, hyalinis, 2,5-5,4 μ. diam., levibus, sæpe isthmis connexis; statu ascophoro nondum observato.

Hab. in fermento putrescente batato orizino (Reiskoji) in Japonia. — Optiman temperiei 25-28 c.

13. Sterigmatocystis nidulans Eidam — Syll. X p. 524. — Var. 7995 Nicollei Pinoy C. R. Ac. d. Sc. Paris, CXLIV (1907) p. 396. — Conidiis et sclerotiis vesiculis obtectis cum typo concordat, sed dignoscitur ascis non evolutis et quia (in cuniculis inoculatus) non nocet.

 ${\it Hab}$ . ex pede ægro mulieris culturâ evoluta, in Tunisia Africæ septentrionalis.

14. Sterigmatocystis polychroma Ferr. Fl. it. crypt. Hyph. p. 640. 7996

— Aspergillus versicolor Tiraboschi, Ann. di Botan. III (1908)

p. 9. — Sterigmatocystis versicolor Vuill? in Mirsky, Sur quelques causes d'erreur dans la déterm. des Aspergillées, thèse,

Nancy (1903). — Cæspitulis polychromis (roseis, luteis, griseis, incarnatis, viridulis etc.); conidiophoris septatis, 300-450 × 5-5,5,

apice capitulum subsphæricum  $50-60~\mu$ . diam. gerentibus; vesicula obovato-rotundata,  $16-17 \times 11-14$ , pseudobasidiis primaris inverse conoideis, brevibus,  $5-6 \times 3-4,5$ , pseudosterigmatibus (2-3 v. pluribus) ampulliformibus,  $7-10 \times 2-3$ ; conidiis catenulatis 2,5-3  $\mu$ . diam., subhyalinis v. varie pallide coloratis.

Hab. in aëre domi e morbo pellagra dicto vitiato, in Apennino Reggio Æmiliæ (Ceni). — Observante prof. Ferraris, St. versicolor Vuill. parum recedit capitulis minoribus, 165 ≈ 127, pseudosterigmatibus secundariis quoque minoribus etc.

- XYLOCLADIUM Syd. (1900) Cfr. Syll. XVI p. 1089 char. emend. Höhn., Ceratocladium Pat., non Corda. Basidiobotrys Höhn. Fragm. z. Myk VI, Stzb. K. Ak. d. Wiss. Wien, CXVIII Abt. I, 1909, p. 420. Hyphæ parasiticæ repentes, septatæ, parce ramosæ. Conidiophora simplicia v. ad basim parce ramosa, assurgentia, apice cylindrico-clavata, clava tota pseudobasidiis brevissimis, pluridentato-sporigeris, patulis prædita. Conidia continua, ovato-ellipsoidea.
- Xylocladium Clautriavii (Pat.) Syd. l. c. char. emend. Syll. 7997
   XVI p. 1089. Basidiobotrys Clautriavii (Pat.) v. Höhn. l. c., fig. 29, char. emend. Hyphis sterilibus 8-10 μ. cr.; clava eylindracea, continua 60-110 × 10-14, pseudobasidiis verruciformibus 3-4 × 2-3, apice obtuso 3-4-denticulato; conidiis elliptico-ovoideis, 5-6 × 3, hyalinis, facile deciduis.

Hab. in stromate Xylariæ furcatæ parasitice, Buitenzorg Javæ (CLAUTRIAU et v. Höhnel). — Teste v. Höhnel est species parasita, non st. conidicus Xylariæ; sed nihil obstat quominus nomen genericum Xylocladium Syd., charactere emendato, sit nobis servandum.

PENICILLIUM Link — Syll. IV p. 78, X p. 527, XI p. 593, XIV
p. 1047, XVI p. 1030, XVIII p. 517 \*).

<sup>\*)</sup> His ultimis annis clari mycologi Dierckx, Bainier, Thom, Westling etc. innumeras species novas *Penicillii* condiderunt, imprimis culturæ arte factæ ope. Utrum sint bonæ species an non in posterum est comprobandum. Id certum est quod, nisi in confusionem maximam labamur, necesse est ut prædictæ species sedulo et critice comparentur et inquirantur. Opus vero difficillimum quod nonnisi monographi experiri poterunt.

E diligentissima monographia cl. Ch. Thom (Cultural stud. of Penicill. in Bull. 118 Dep. of Agricult. Washingt. 1910) clavem analyticam sequentem excerpsimus. Hic auctor nonnullas species anonymas reliquit, nempe: n. 12, 22, 24, 28, 33, 37 (et n. 29, 30, 31, 32, in gignendo sclerotia rubra simillima convenientes).

Clavis analytica specierum secundum notas ex cultura in gelatina et agar petitas.

- A. Species typice coremia verticalia et distincta efformantes.
- a. Coremia longa (3-15 mm.).
- 1. Massa conidiorum stricte terminalis olivaceo-virens, fragrans.

Penicillium claviforme

P. No. 32

- 2. Coremia in tertia sup. parte fertilia, conidia viridia. P. Duclauxi aa. Coremia brevia.
  - 1. Coremia definita, dense conferta, colonia subtus aurantiaca. P. granulatum
- Coremia in culturis initio tantum e conidiis aggregatis indicata, denique (in cult. vetustis) bene definita et in fructibus Mali valde extensa.
   P. expansum
- AA. Species in cultura non v. raro coremia efformantes.
- B. Species constanter sclerotia v. massas ascigeras efformantes.
- b. Massas ascigeras efformantes, flavas v. rubras. P. luteum
- bb. Sclerotia in cult. vetustis massas albas formantes. P. italicum
- bbb. Sclerotia rubra v. rosea, globosa v. ellipsoidea, usque ad 500  $\mu.$  d.
- c. Fructificatio conidica columnata.
  - 1. Columna densa, longa, sclerotia substrato partim immersa. P. No. 30
- 2. Columna ex catenulis laxis constans, sclerotia numerosa, emersa. P. No. 29
- cc. Fructificatio conidia ex catenulis divergentibus constans.
- 1. Rapide liquefaciens, conidia globosa, 2,5-3 μ. P. No. 31
- Lente liquefaciens, conidia ellipsoidea, 8,5-4 v 2,5-3.
   BB. Selerotia nulla v. raro ex causis particularibus efformata.
- C. Rapide liquefaciens (liquamen copiosum intra 5-12 dies).
- D. Odor distinctus fortiter ammoniacalis.
  - 1. Flavido-brunneo-avellaneum, conidia rugosa. P. brevicaule
  - 2. Album v. cremeum, conidia rugosa.

    P. brevicaule var. album
  - 3. Album v. cremeum, conidia levia. P. brevicaule var. glabrum
- DD. Odor ammoniacalis nullus.
- E. Color flavidus in gelatina liquefacta, non in parte inf. mycelii.
  - 1. Colonia parva, conidiophoris 100-150 μ. long. P. citrinum
  - 2. Colonia late effusa, conidiophoris 250-300 μ. long. P. chrysogenum
- EE. In gelatina liquefacta non v. parcissime flavo-colorata.

jjj. Superficies fructificans velutina ex conidiophoris simplicibus v. laxe constipatis et simplicibus visis formata.
1. Griseo-virescens, ramuli conidiophori sublaxi, odore nullo vel

P. No. 22

levi.

- 2. Viride, fructificatio conidica subcompacta, odore definite mucedineo.

  P. commune
- k. Massa conidica ex columna densa catenarum conidiorum constans.
  - 1 Columna verticillo ramulorum singulo suffulta. P. spinulosum
- 2. Columna verticillo ramulorum e cellulis verticillatis et catenulis efformata constituta.

  P. rubrum

kk. Columna nulla.

- l. Conidia levia.
- 1. Viride, late effusum, conidia matura globosa, 4-5 μ. P. Roqueforti
- 2. Viride, minus expansum, conidia ellipsoidea, substentaculum plerumque purpurascens.

  P. purpurogenum
- 3. Griseum v. viride olivaceum, conidia 5-6 3-5.

P. digitatum

Il. Conidia delicate rugulosa.

P. rugulosum

#### Clavis analytica specierum secundum matrices.

In caseo (Camembert et Brie).

- 1. Floccosum, album immutabile, inodorum. P. Camemberti var. Rogeri
- 2. Floccosum, ex albo-griseo-viride, inodorum. P. Camemberti
- 3. Pulveraceum, albo-flavidum, conidia levia odore ammoniacali.
  - P. brevicaule var. glabrum
- 4. Pulveraceum, albo-flavidum, conidia tuberculata, odore ammoniacali.

  P. brevicaule var. album
- 5. Areas flavido-brunneas efformans, conidia rugosa, odore ammoniacali. P. brevicaule

In caseo (Roquefort).

1. Massæ virides in interiore casei.

P. Roqueforti

In fructibus Citri.

1. Coloniæ cyaneo-virides.

P. italicum

2. Colonia olivaceo-griseæ.

P. digitatum = olivaceum

In fructibus Pomacearum (Pira, Mala etc.).

1. Coloniæ cyaneo-virides, denique coremia efformantes.

P. expansum

In Polyporaceis (Boletus, Polyporus etc.).

1. Coloniæ virides (viridi-flavæ) stoloniferæ.

P. stoloniferum

In ligno (Pini).

- 1. Maculas ex aurantiaco rubras in ligno pineo efformans. P. pinophilum
- Penicillium brevicaule Sacc. Syll. IV, pag. 84 var. album 7998
   Thom, Cult. stud. of Penicill. Washingt. (1910) (Dep. of Agric. Bull. 118) p. 47, fig. 13. A typo differt præcipue colore albo conidiorum et ob alias notas ex cultura.

Syll. fung. XXII (VI-1913)

Hab. in caseo Camembert indigeno et importato, in America boreali. - Var. glabrum Thom, l. c. p. 48, fig. 14. - A typo differt conidiis albis et levibus et productione sclerotiorum nigrorum in substrato. — In caseo in America boreali.

2. Penicillium citrinum Thom, Cult. stud. of Penicill. Washington 7999 (1910) (Dep. of Agricult. Bull. 118) p. 61, fig. 22. — Coloniis in gelatina v. agaro Solani tuberosi aut Phaseoli cultis, æruginosoviridibus, demum fuligineis; fructibus viridibus usque ad marginem gestis, i. e. margine sterili angustissimo; coloniis in gelatina rotundis, parvis, cito liquescentibus; in agaro latioribus; parte aërea ex conidiophoris et fructibus conidicis creberrimis composita, interdum cæspitibus paucis hypharum adscendentium in medio; reverso incolorato; conidiophoris (sine ramis) non longioribus 150 μ., singulatim orientibus, aut paucis ex hyphis adscendentibus ramosis; fructibus conidicis 3-5 ramorum, 16-30 × 3, apice 5 μ. incrassatorum, in verticillo, basidia in verticillis compactis gerentium; utroque verticillo catenis conidiorum in columnas compactas 50-150 μ. longas adhærentibus; pseudobasidiis 6-7 × 2-3; conidiis globosis, 2,4-3 raro 3,5 µ. diam., æruginoso-glaucis, granulatis intus, in catenis manentibus submersis. Coloniis, saccharo commixtis, substrata citrina colore efficientibus (unde nomen).

Hab. in caseo, pane, etc., commune in Amer. bor. — Cl. Auct. descripsit l. c. pag. 63 et 64, fig. 23 duas Penicillii formas sub nn. 37 et 12 dubie ad P. citrinum pertinentia.

3. Penicillium chrysogenum Thom, Cult. stud. of Penicill. Washingt. 8000 (1910) (Dep. of Agric. Bull. 118) pag. 58, fig. 20. — Coloniis in gelatina v. agaro Solani tuberosi aut Phaseoli cultis, griseo-viridibus, demum brunneolis, in substrato late crescentibus, margine sterili lato, in juvenilibus parte aërea ex conidiophoris et cæspitibus sparsis hypharum adscendentium composita; reverso incolorato; conidiophoris plerumque singulatim usque 300 × 4 orientibus, raro brevibus ex hyphis assurgentibus ramosis; fructibus conidicis 100-200 µ. long. cum 1-2 ramis alternatis et divergentibus ramulos 1-2 verticillatos gerentibus; pseudobasidiis 8 × 2,5 verticillatis ex apicibus ramulorum, catenas divergentes conidiorum gerentibus; conidiis primum cylindricis v. ellipsoideis, demum globosis, 3-4 µ. d., pallide glaucis, magnis vacuolis; coloniis gelatinam liquefacientibus, lacmi (laccamuffa) ope alcalinis lac, panem, gelatinam, aureocolorantibus.

Hab. in caseo, pane etc., commune in America bor.

4. Penicillium atramentosum Thom, Cult. stud. of Penicill. Washingt. 8001 (1910) (Dep. of Agric. Bull. 118) p. 65, f. 24. — Coloniis in gelatina v. agaro Solani aut Phaseoli cultis, viridibus, parte aërea plerumque ex conidiophoris singulatim orientibus, medio cum hyphis aëreis interspersis, margine albo ex hyphis fertilibus angusto; reverso incolorato v. parum ochraceo; substrato aut incolorato aut in substratis saccharinis et in lacte atro-brunneo tarde fere atro; conidiophoris 240-300 usque ad 400 µ. long.; fructibus conidicis 100-200 μ. long., ramis 1-2 verticillatis 2-4 inæqualiter longis in verticillo, in apice incrassatis; pseudobasidiis 8-10 μ. long., parallelis in verticillo; catenis conidiorum eodem verticillo in columnam compactis; conidiis ellipsoideis 3,5-4 (usque ad 4,8) × 2,5-3 usque ad 3,5, lævibus, viridibus, 6-7 µ. incrassatis et uno tubo germinantibus; coloniis gelatinam cito liquefacientibus, lacmi (laccamuffa) ope alcalinis; odore in lacte proprio, in substratis aliis nullo.

Hab. ex caseo cultum, Storrs Conn. Amer. bor. — Aliam formam descripsit auct. l. c. pag. 66, fig. 25 sub Penicillium n. 24 dubie ad speciem præsentem spectantem.

5. Penicillium stoloniferum Thom, Cult. stud. of Penicill. Washingt. 8002 (1910) (Dep. of Agric. Bull. 118) p. 68, fig. 26. — Coloniis in gelatina v. agaro Solani tuberosi cultis, viridibus v. flavo-viridibus, demum griseo-viridibus v. griseis in agaro sine saccharo, cum saccharo viridibus, floccosis, in culturis juvenilibus stolonibus aëreis citius quam hyphis submersis crescentibus, reverso incolorato v. in parte flavo; conidiophoris brevibus ex hyphis adscendentibus ramosis, usque ad 100 µ. long. aut singulatim orientibus (sine ramis) plus minus 300 μ. long.; fructibus conidicis 40-80 μ. raro usque ad 170 µ. longis, ex ramis brevibus compactis et pseudobasidiis verticillatis, in basi confertissimis, catenas conidiorum late divergentes gerentibus compositis (interdum ramus infimus tam divergens ut fructus duplex videatur); pseudobasidiis 10 × 3; conidiis ellipsoideis v. pæne globosis, 2,8-3,4 µ. diam., pallide flavo-viridibus levibusque; coloniis gelatinam cito liquefacientibus, lacmi (laccamuffa) ope alcalinis.

Hab. in fungis putrescentibus, Boletis, Polyporis, Storrs Conn. Amer. bor. et Paris Gallia.

6. Penicillium divaricatum Thom, Cult. stud. of Penicill. Washingt. 8003 (1910) (Dep. of Agric. Bull. 118) pag. 72, fig. 29. — Coloniis in gelatina v. agaro Phaseoli cultis, avellaneis, nunquam viridibus, in substrato late crescentibus; parte aërea ex hyphis fertilibus in-

tricatis, demum fere pulverulenta; reverso incolorato; hyphis fertilibus septatis, plerumque brevibus, repentibus v. adscendentibus; fructibus conidicis aut terminalibus aut lateralibus ex hyphis fertilibus repentibus ex verticillis sessilibus ramorum et basidiorum, irregulariter in hyphis fertilibus orientibus; pseudobasidiis 15–  $20 \times 3$ ; pseudosterigmatibus longis acuminatis in basi confertis, apice late divergentibus, catenas longas conidiorum gerentibus; conidiis ellipsoideis v. fusiformibus, 5-7 × 2,5-3, avellaneis, 10  $\mu$ . incrassatis, 2-3 tubis germinantibus; coloniis gelatinam non liquefacientibus, lacmi (laccamuffa) ope alcalinis.

Hab. in culturis, Storrs Conn. Amer. bor. (С. Тном).

7. Penicillium lilacinum Thom, Cult. stud. of Penicill. Washingt. 8004 (1910) (Dep. of Agric. Bull. 118) pag. 73, fig. 30. — Coloniis in gelatina v. agaro Phaseoli cultis, albis v. ex albo demum pallide lilacinis imprimis in saccharo officinarum commixto, floccosis; hyphis aëreis ramosis, adscendentibus, septatis, 3 μ. cr., ramos fertiles brevissimos gerentibus; reverso incolorato; fructibus conidicis usque ad 100 μ. long., e pseudobasidiis sessilibus, solitariis v. verticillatis, aut, e ramis brevissimis v. apicibus hypharum aërearum, 1,2,3, verticilla ramulorum et pseudobasidiorum, catenas longas et divergentes conidiorum gerentium; pseudobasidiis basi incrassatis, apicibus acuminatis et divergentibus, 7-10 μ. long.; conidiis 2,5-3 × 2, ellipsoideis, lævibus, pallide lilacinis; coloniis gelatinam lente liquefacientibus, lacmi (laccamuffa) ope alcalinis.

Hab. in culturis Ithaca N. Y. Amer. bor. (G. F. Atkinson et C. W. Edgardton).

8. Penicillium Camemberti Thom, U. S. Dept. Agric. Bur. animal 8005 Industry, Bull. 82 (1906) et Cult. stud. Penicill. Washingt. (1910) p. 50, f. 16. — Cæspitulis viridibus; hyphis 3-4,2 μ. cr., septatis, articulis 30-40 μ. longis; conidiophoris tenuissime tunicatis, sæpe geniculato-anastomosantibus, sursum ramo laterali crassiusculo auctis, apiceque tam hoc quam hypha primaria verticillato-ramosis; pseudosterigmatibus, 8-11 × 2,4-3; conidiis primo cylindricis demum globulosis 5 μ. diam,, flavo-viridulis.

Hab. in case o Brie et Camembert in Amer. bor. et Germania. — Var. Rogeri Thom, l. c. pag. 52, fig. 17, Pen. Epsteinii Lindau, Krypt. Fl. Pilze VIII, p. 166? — A typo differt colore albo immutabili nec ex albo virescente aliisque notis ex cultura. — In case o in Amer. bor. et Germania.

9. Penicillium funiculosum Thom, Cult. stud. of Penicill. Washingt. 8006

(1910) (Dep. of Agric. Bull. 118) pag, 69, fig. 27. — Coloniis in gelatina vel agaro Solani tuberosi aut Phaseoli cultis, atro-viridibus, late crescentibus, floccosis; parte aërea ex hyphis decumbentibus, ramosis, cæspitosis, late intricatis et fasciculatis, conidiophora brevia gerentibus interdum hyphas secundarias albas floccosas lente evolvente; reverso rubescente demum atro-vinoso; substrato (aut lacte aut gelatina) vinoso; conidiophoris (sine ramis) 20-80 usque ad 100 µ. long., plerumque ex hyphis repentibus vel fasciculatis, interdum singulatim orientibus; fructibus conidicis usque ad 125-160 µ. long., cum 1-2 ramis alternatis, dein ramulis verticillatis, pseudobasidiis in verticillos densos 10-14 × 2-3, parallelis in verticillo, acuminatis; catenis conidiorum parallelis; conidiis primum cylindricis, demum fusiformibus v. ellipsoideis, 3-4 × 2-3, viridibus; conidiorum catenis fatiscentibus submersis; coloniis gelatinam non liquefacientibus, lacmi (laccamuffa) ope acidis, siccantibus senescentibusque interdum coremia pauca evolventibus.

Hab. in culturis Storrs Conn., Amer. bor. (comm. E. A. Bessey, ex Miami Flo.).

10. Penicillium pinophilum Thom, Cultur. Stud. Penicll. p. 38, f. 6, 8007 (1910) Penicillium aureum Hedgeock, Mo. Bot. Gard. Rep. 17 (1906) p. 105, non Corda. — Coloniis in Solano tuberoso, agaro, lacte cultis, e viridi v. flavo-viridi aureis; conidiophoris 100-200 μ. altis, parte conidigera 120 μ. long. verticilli primarii ramis 10-16 × 2-2,5, pseudobasidia 13-15 × 2-2,5 verticillata acuminata gerentibus; catenis parallelis, non tamen columnaribus; conidiis ellipsoideis 3-3,6 × 2, levibus, pallide griseo-flavidis; coloniis gelatinam obsolete liquefacientibus, lacmi (laccamuffa) ope reactionem neutram v. acidam efficientibus.

Hab. in ligno Pini, quod intese colore aureo tingitur, in America bor.

11. Penicillium intricatum Thom, Cult. stud. of Penicill. Washingt. 8008 (1910) (Dep. of Agr. Bull. 118) p. 75, f. 31. — Coloniis in gelatina v. agaro Phaseoli cultis, albis, griseis, griseo-glaucis, demum griseis, lente fere fuligineis, floccosis, zonatis; parte aërea usque ad 1-3 mm. cr., ex hyphis aëreis ramosis dense intricatis; reverso incolorato v. sulphureo interdum lente avellaneo; substrato sulphureo-colorato; conidiophoris interdum terminalibus plerumque ex hyphis aëreis brevibus 30-50 μ. ramosis; fructibus conidicis 50-100 μ. usque ad 140 μ. long. multo longioribus in substratis saccharinis; ex verticillo pseudobasidiorum v. ex 1-3 verticillis pseudoba-

sidiorum in ramis divergentibus v. ex verticillis ramulorum et pseudobasidiorum eodem verticillo, catenis conidiorum sæpe in columnam laxe convergentibus; pseudobasidiis 8-10 × 2-2,5, paucis (4-10); conidiis ellipsoideis v. globosis, hyalinis v. pallide glaucis 2,5-3 p. diam., levibus, leptodermis, intus granulosis, in catenis manentibus submersis; coloniis gelatinam non liquefacientibus. lacmi ope alcalinis.

Hab. in culturis ex humo, Storrs Conn. Amer. bor. (W. M. ESTEN).

12. Penicillium decumbens Thom, Cult. stud. of Penicill. Washingt. 8009 (1910) (Dep. of Agric. Bull. 118) pag. 71, fig. 28. — Coloniis in gelatina pura v. agaro Solani tuberosi aut Phaseoli cultis, griseoglaucis, griseis, demum brunneolis, sparsis; in saccharo officinarum commixto densiorbus, glaucis; parte aërea ex hiphis decumbentibus s. stoloniformibus conidiophora brevissima gerentibus, demum cæspitulis albis densis hypharum sterilium secundariarum, conspersis; reverso incolorato; conidiophoris 20-100 × 3, pseudobasidiis 7-9 × 2-3, in uno verticillo denso gerentibus; fructibus conidicis ex catenis conidiorum primum in columnam usque ad 100 μ. longam digestis, mox in capitulo conglutinato, solutis; conidiis globosis, 2,5-3 µ. vacuolatis, levibus, primum pallide glaucis demum brunneolis; coloniis gelatinam non liquefacientibus, lacmi ope alcalinis, saccharophilis, odorem in saccharo evolventibus.

Hab. cultum ex Miami Flo. Amer. bor. (Com. P. H. Rolfs). 8010 13. Penicillium biforme Thom, Cult. stud. of Penicill. Washington (1910) (Dep. of Agric. Bull. 118) p. 54, f. 18. - Coloniis in gelatina cultis, albis, lente glaucescentibus, densius floccosis, margine sterili lato, aut in agaro Solani tuberosi cultis, albis glaucescentibus, mox avellaneis v. fere olivaceis, parte aërea ex conidiophoris brevissimis et creberrimis fructibusque conidicis composita; conidiophoris (sine ramis) 60-150 µ. in agaro, v. longioribus ramosis ex hyphis floccosis in gelatina cultis; fructibus conidicis 100-200 μ. long., plerumque 1-2 alterne ramosis, ramis convergentibus v. divergentibus, ramulis verticillatis pseudobasidia apice verticillata gerentibus; pseudobasidiis 8-10 usque ad 13 × 3; conidiis primum ellipsoideis v. cylindricis demum globosis, 4-4,3 × 3,2-3,5 v. 4 μ. diam., in catenis manentibus submersis; coloniis copiosis in saccharo lactis, gelatinam partim lente liquefacientibus, lacmi ope alcalinis, odore mucido.

Hab. in caseo ex Gallia. - P. Camemberti proximum.

14. Penicillium commune Thom, Cult. stud. of Penicill. Washingt. 8011 (1910) (Dep. of Agric. Bull. 118) pag. 56, fig. 19. — Coloniis in gelatina v. agaro Solani tuberosi aut Phaseoli cultis viridibus, demum brunneolis, in substrato late crescentibus, zonatis; marginis crescentis parte aërea ex conidiophoris centri atque ex hyphis plus minusve floccosis composita; reverso et substrato incolorato; conidiophoris plerumque 300 μ. raro usque 700 μ. longis; fructibus conidicis 100-200 μ. longis, cum ramis alternatis et verticillatis confertis; pseudobasidiis 8-9 × 3, cum apicibus brevibus acutis, catenas conidiorum longas parallelas gerentibus; conidiis primum cylindricis vel ellipsoideis, demum globosis, 3-4 μ. diam., ad 5-6 μ. incrassatis germinantibus, levibus, viridibus, in catenis manentibus submersis; coloniis in gelatina partim lente liquefacientibus; odore mucido.

Hab. in lacte, caseo etc. Storrs, Conn. Amer. bor. — Sub Penicillium n. 22 describit Auctor aliam formam ad Pen commune proximam.

15. Penicillium spinulosum Thom, Cult. Stud. of Penicill. Washingt. 8011\* (1910) (Dep. of Agric. Bull. 118) p. 76, fig. 32. — Coloniis in gelatina v. agaro Phaseoli cultis atro-viridibus, demum fere atris, cito et late in substrato crescentibus, margine sterili lato in juvenilibus; parte aërea ex conidiophoris et ex hyphis floccosis sparsis composita; reverso incolorato; conidiophoris 105-300 × 3-3,5 vel longioribus, apice 5 μ. cr., verticillum pseudobasidiorum 9,5-11 × 2-3 gerente; fructibus conidicis in columna densa 300 usque ad 500 × 15-30 ex catenis conidiorum composita; conidiis piriformibus v. globosis 3,2-3,5 × 3,6-4, leptodermis, primum levibus demum minutissime spinulosis; coloniis gelatinam lente liquefacientibus, lacmi ope acidis.

Hab. in cultura in laboratorio, Hannover Germaniæ. — Cl. Auctor l. c. p. 77, fig. 33, describit sub n. 28 aliam forma dubitanter ad hanc speciem spectantem.

16. Penicillium Roqueforti Thom, U. S. Dept. Agric. Bur. animal 8012 Industry Bull. 82 (1906) et Cultural stud. of Pencill. Washingt. (1910) p. 34, f. 4. — Cæspitulis viridulo-cyaneis; hyphis 3,6-5 (sæpius 4,2) μ. cr., septatis, articulis 35-45 μ. long.; conidiophoris modice ramosis, sæpe furcatis; pseudosterigmatibus clavatis v. cylindraceis, summo apice coarctatis; conidiis globosis 4-5 μ. diam.

Hab. in case is Roquefort et Gorgonzola in Amer. boreali et Germania.

17. Penicillium rugulosum Thom, Cult. stud. of Penicill. Washingt. 8013 (1910) (Dep. of Agric. Bull. 118) p. 60, f. 21. - Coloniis in gelatina v. agaro Phaseoli cultis, flavo-viridibus, dein viridibus, demum atro-viridibus, late crescentibus in agaro; parte aërea ex conidiophoris creberrimis et hyphis aëreis et paucis composita; reverso luteo et in parte aurantiaco imprimis in tubero Solani; conidiophoris 100-200 × 2,5-3, singulatim v. ex hyphis aëreis prope substratum orientibus; fructibus conidicis 100-150 µ. long. (in saccharo multo longioribus) ex ramis 10-15 × 2,5, compacte verticillatis, verticillos pseudobasidiorum v. ramulorum et pseudobasidiorum eodem verticillo gerentibus; pseudobasidiis 9-12 × 2, acuminatis, catenas longas et divergentes conidiorum gerentibus; conidiis 3,4-3,8 × 2,5-3, ellipsoideis, viridibus, uno apice incrassato, maturis verruculosis, in catenis manentibus submersis, 5 µ. diam., incrassatis germinantibus; coloniis non (v. solum in parte et lente) gelatinam liquefacientibus.

Hab. in culturis, commune, Storrs, Conn. Amer. bor.

18. Penicillium vesiculosum Bainier, Bull. Soc. Myc. Fr. XXIII 8014 (1907) p. 10, tab. II \*). — Racemis conidiophoris sæpe formam vesiculosam imitantibus; conidiis sphæricis, 3,7 μ. diam.; pseudosterigmatibus 7 μ. long.

Hab. in tuberibus udis Solani tuberosi in Gallia.

19. Penicillium virescens Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 8015 pag. 12, t. II. — Atro-virens; pseudosterigmatibus 8,4 μ. long.; conidiis sphæricis 2,8 μ. diam.

Hab. in substantiis . . . . non indicatis in Gallia.

20. Penicillium erectum Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 8016
p. 18, t. III. — Cæspitulis cyaneo-cinereis; conidiis minutissimis, globosis, 2,8 μ. diam.; pseudosterigmatibus 19 × 5-6.

Hab. in fragmentis ligneis putrescentibus in Gallia.

21. Penicillium aspergilliforme Bainier, Bull. Soc. Myc. Fr. XXIII 8017 (1907) p. 14, t. III. — Habitu fere Aspergilli abnormis, viride; conidiis sphæricis 2,8-5.

Hab. in substantiis . . . . non indicatis in Gallia.

<sup>\*)</sup> Cl. Bainier l. c. plurimas *Penicillii* species novas iconibus et descriptionibus fusis illustravit, sed absque diagnosibus comparativis. Verisimiliter pleræque hæc species cum illis ab auctoribus collidunt. Earum paucas notas hig rettuli, studiosus utilius içones Bainierianas comparabit,

22. Penicillium Urticæ Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 8018
p. 15, tab. IV. — Albo-virens dein griseo-virens; conidiis globosis, 2,8 μ. diam.; pseudosterigmatibus 8-9 μ. long.

Hab. in caulibus emortuis Urticæ sp. in Gallia.

23. Penicillium puberulum Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 8019 p. 16, tab. 4, fig. 6-12. — Viridi-cærulescens, demum sordide virens; hyphis fertilibus rectiusculis, 5-6 μ. cr., puberulis; conidiis sphæricis, 4,2 μ. diam.

Hab. in substantiis . . . non indicatis in Gallia.

24. Penicillium asperulum Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 8020 p. 17, tab. IV, fig. 13-18. — Albo-cærulescens, demum sordide virenti-cyaneum; hyphis fertilibus sinuoso-undulatis 5-6 μ. cr., granulosis; conidiis sphæricis, 4,2 μ. diam.

Hab. in substantiis . . . . non indicatis in Gallia.

25. Penicillium elongatum Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 8021
p. 17, t. V, fig. 1-7. — Pallidissime cyaneum dein pallide virens; conidiis distincte ovoideis, 2,8 ≈ 1,4-1,6.

Hab. in fragmentis ligneis udis in Gallia.

26. Penicillium albicans Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 8022 p. 18, tab. V, fig. 8-9. — A *Pen. rubescente* differt conidiis ovoideis, paullo amplioribus, colore diu albido, demum flavido-rufescente.

Hab. in palea graminearum humida in Gallia.

27. Penicillium patulum Bainier, l. c. p. 208, Bull. Soc. Myc. France 8023 XXII (1906) et XXIII (1907) p. 18, t. V, fig. 10-16. — Conidiophoris filiformibus tortuosis, parce (ad dichotomias) septatis, supra medium patenter dichotome ramosis; ramis sursum laxe ter verticillato-ramulosis, ramulis ultimis phialiformibus; conidiis catenulatis globosis, exiguis, levibus, 2,8 μ. diam. (colore non indicato).

Hab. in excrementis ovinis in Gallia.

28. Penicillium Varioti (Bain.) Sacc, Pæcilomyces Varioti Bainier, 8024 Bull. Soc. Mycolog. Fr. XXIII (1907) pag. 27, tab. VII. — Cæspitulis tenuibus e fulvo viridulis; conidiophoris cylindraceis, septatis sursum inæqualiter ramosis, ramis sæpe tumentibus et apicibus inæqualiter penicillatim bis-quater verticillato-ramulosis, ramulis ultimis seu pseudosterigmatibus elongatis obelavato-phialiformibus; conidiis longe catenulatis, ovoideis, levibus, 6 ≥ 3.

Hab. in ramis emortuis salicinis in Gallia. — Videretur Penicillii species irregulariter evoluta.

29. Penicillium rubellum (Bain.) Sacc., Scopulariopsis rubellus Bai- 8025

nier, Bull. Soc. Mycolog. Fr. XXIII (1907) pag. 104, tab. XII, f. 6-11. — Cæspitulis rubellis; conidiophoris brevibus, parce septatis, mox in ramos ternos-quinos divaricatos subtortuosos divisis, ramis ultimis seu pseudosterigmatibus elongato-obclavatis circ. 28 μ. long.; conidiis irregulariter globosis v. ellipsoideis 8,5-11 × 5,5, nonnullis basi truncatis

Hab. in fungis majoribus putrescentibus in Gallia. — Ex stirpe Pen. brevicaulis quod pariter a cl. Bainier ad Scopulariopsis ducitur.

30. Penicillium rubescens Bainier, Bull. Soc. Mycol. Fr. XXII (1906) 8026 p. 207. — Mycelio, albo copioso, septato repente; conidiophoris hyalinis brevissimis, cylindraceis, sursum ter-quater verticillatim penicillato-ramosis, ramulis ultimis phialiformibus; conidiis longe catenulatis, oblongis, utrinque rotundatis, 5,6 × 2,8. diu albis hyalinis, dein, coacervatis, roseis demumque brunneo-rubentibus.

Hab. in fragmentis Tuberis sp. in Gallia (BOULANGER).

31. Penicillium Paxilli Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 8027 p. 95, t. X, f. 1-4. — Viridi-cyaneum; hyphis conidiophoris parce septatis 1 mm. circ. altis, 2,8 μ. cr., apice laxiuscule 4-8-penicillato-ramosis, ramulis ultimis phialiformibus 8,4 μ. longis; conidiis longe catenulatis, sphæricis, viridibus, 2,8 μ. diam.

Hab. in pileo Paxilli sp. Montgeront Galliæ.

32. Penicillium insigne Bainier, l. c. p. 136, Bull. Soc. Myc. France 8028 XXII (1906) pag. 134. — Mycelio late effuso intertexto septato, hyalino; conidiophoris erectis basi haustoriis rosulatis præditis, initio brevibus, prope basim septatis, demum elongatis cylindraceis continuis 280 × 11, apice verticillato 2-4-ramosos; ramis bis verticillato ramulosis; ramulis ultimis obclavato-phialiformibus 8-11 μ. longis; conidiis catenulatis, tereti-oblongis, utrinque rotundatis, hyalinis, levibus, 5-6 × 2,8.

Hab. in pileo Agarici campestris, Argent-sur-Sauldre Galliæ.

33. Penicillium exiguum Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 8029 pag. 96, t. X, f. 5. — Mycelio candido, ramoso, septato, demum crassiusculo griseo-rubido; conidiophoris brevibus continuis, sursum laxe verticillato-ramosis, ramis et ramulis phialiformibus 8 μ. longis subternis; conidiis catenulatis cylindraceis, utrinque rotundatis, 4 × 2, hyalinis.

Hab. in caseo ex Brie, Champagne Galliæ.

34. Penicillium caseicola Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 8080

p. 94, t. X, f. 6-10. — Totum candidum; hyphis conidiophoris usque ad 5 mm. altis, sursum laxe et irregulariter ramosis; ramulis ultimis verticillato-subternis, phialiformibus, 16-17 μ. longis; conidiis sphæricis, levibus, hyalinis 5,6 μ. diam.

Hab. in caseo udo in Gallia.

35. Penicillium rufulum (Bain.) Sacc., Scopulariopsis rufulus Bai-8081 nier, Bull. Soc. Mycolog. Fr. XXIII (1907) pag. 105, tab. XII, fig. 1-5. — Affine Penic. rubello, sed ramis magis irregularibus, eæspitulis rufescentibus, pseudosterigmatibus magis elongatis; conidiis ovoideis dein sphæroideis 5,6-7 μ. diam.

Hab. in caseo et fungis subputridis in Gallia.

36. Penicillium Costantini Bainier, Bull. Soc. Myc. Fr. XXII (1906) 8032 p. 205, Sympenicillium album Cost. Bull. Soc. Myc. Fr. IV (1888) p. 62. — Mycelio copioso, albo, repente, parce septato, sursum conidiophora crebra emittente; conidiophoris cylindricis septatis hinc inde breviter arrecto-ramulosis, interdum laxe subfasciculatis, apice bis penicillatim verticillato-ramosis, ramulis ultimis phialiformibus; conidiis longiuscule catenulatis tereti-ovoideis, 6-13 × 3-6, utrinque rotundatis, levibus, hyalinis.

Hab. in excrementis, paleis, chartis putridis in Gallia.

37. Penicillium Scopulariopsis Sacc., Scopulariopsis communis Bainier, 8033 Bulletin Soc. Mycolog. Fr. XXIII (1907) pag. 125, tab. XVI, p. 3-6, non Penicillium commune Thom. — Hyphis sterilibus repentibus, subinde fasciculatis, parce septatis, hyalinis; conidiophoris crebris, brevissimis, plerumque continuis apice semel, raro repetite verticillato-ramosis, ramulis ultimis (pseudesterigmatibus) plus minus elongatis obclavatis; conidiis ovoideis, minutis, levibus, hyalinis, 6-11 × 3,6, longiuscule catenatis.

Hab. in substantiis . . . . non indicatis (caseo, fungis carnosis?) in Gallia.

38. Penicillium Bainieri Sacc., Scopulariopsis repens Bainier, Bulletin 8034 Soc. Mycolog. Fr. XXIII (1907) p. 125, t. XVI, f. 1-2. — Hyphis sterilibus repentibus parce septatis; conidiophoris brevissimis mox bis verticillato-ramosis; ramulis ultimis (pseudosterigmatibus) obclavato-phialiformibus 14-28 μ. longis; conidiis perfecte sphæricis, longiuscule catenulatis, minute echinulatis, subavellaneis, 6-8 μ. diam.

Hab. in substantiis . . . . non indicatis (caseo, fungis carnosis?) in Gallia.

39. Penicillium niveum Bainier, Bull. Soc. Myc. Fr. XXII (1906) 8085

p. 136, t. IX, f. 5-12. — Totum album; conidiophoris cylindricis, 650 × 12, pluriseptatis, apice quinquies verticillato-ramosis, congesto-penicillatis,, ramis ramulisque terno-quinis ramulis ultimis phialiformibus exiguis; conidiis cylindraceis 8,5-11 × 2,8-3, hyalinis.

Hab. in substantiis . . . non indicatis, Paris Galliæ.

40. Penicillium Musæ Weidemann, Centralbl. f. Bakter. etc. II Abt. 8036 XIX (1907) p. 687, cum icon. — Flavo-brunneum v. olivaceum, cæspitulosum, hyphis copiose ramosis, 2,5 μ. cr.; conidiophoris 3-3,2 μ. cr. ramulis lateralibus 1-2 auctis; ramulis iterum pari altitudine divisis et hyphæ primariæ parallele ascendentibus, latitudinem suam sexies superantibus et 5-9 sterigmatibus elongatis coronatis; sterigmatibus sursum sensim tenuatis; conidiis longe catenulatis, ellipsoideis v. fere globosis 2,2-2,8 × 2-2,3.

Hab. in fructibus Musæ, Kiel Germaniæ.

41. Penicilium Sacchari J. Ray, Variat champ. infér. p. 61, t. XVI 8087 (1897). — Mycelio repente filiformi parce ramoso, albo, hypostromate indistincto; hypha conidiophora primaria erecta, continua, filiformi sursum (ex icone) verticilla bina remotiuscula superimposita gerente; ramis subquaternis cylindricis, pseudobasidiis tereti-obclavatis terno-quaternis verticillatis coronatis; conidiis ovoideis catenulatis, minutis 2 × 1 viridibus.

Hab. in culmo putrescente Sacchari officinarum, Paris Galliæ. — Species mediis variis culta satis variat. Conceptacula ascophora in mycelio serius generantur; asci ovoidei sporidia sena ellipsoidea includentes. Cfr. l. c.

42. Penicillium Benzianum Sacc., Penicillium insigne Saccardo, Not. 8038 Myc. IX, Ann. Myc. V (1907) pag. 178, non Bainier (1906). — Cæspitulis albis dein roseolis, compactiusculis, pulvinatis v. confluendo effusis; hyphis sterilibus repentibus septatis, parce ramosis, 6-7 μ. cr., fertilibus, seu conidiophoris, adscendentibus, cylindraceis, brevibus, 50-60 × 7, parce septatis, sursum penicillato-ramosis, ramis iterato-ternis, arrectis (hinc condensatis), ultimis apicem versus obtuse tenuatis, ramo inferiori subinde solitario; conidiis ex apice ramulorum longissime catenulatis, subglobosis, majusculis, levibus, 9 × 8, vertice minute apiculatis, hyalinis, demum dilutissime roseis, per apiculos inter se connexis.

Hab. in foliis Citri Limonum dejectis et loco udo diu servatis, Patavii, ex agro Tarvisino a cl. prof Benzi missis. — Species conidiis levibus et per apiculos catenulatis a Pen. coccophilo,

cui conidiophoro primario brevi et conidiis majusculis accedit, mox dignoscitur.

43. Penicilium gliocladioides Speg., Myc. Arg. V, p. 433, in Anal. 8039 Mus. Nac. Buenos Aires XX (1910). — Minutissimum, ægre perspicuum, late sed laxe gregarium, capitulis horizontalibus v. pendulis; hyphis mycelialibus 2–3 μ. cr. hinc inde breviter ramulosis, ramulis erectis v. curvulis, septulatis, 30-100 × 3; ramulis fertilibus simplicibus v. sæpe bifidis apice abrupte subverticillatim 3-6-capitulato-ramuligeris; ramululis constipatis elliptico-cylindraceis 5-10 × 1-1,5; conidiis in capitulum pusillum subcylindraceum, 100-120 × 20, cinereum, compactiusculum diu conglobatis, ellipsoideis, 5-6 × 1, ægre dissilientibus, levibus.

Hab. ad folia coacervata diu loco udo servata Coffe æ arabicæ, La Plata Argentina Amer. austr.

44. Penicillium Juglandis Weidemann, Centralbl. f. Bakter. II Abt. 8040 XIX (1907) p. 683, eum icon. — Atro-vireus, granulosum; hyphis 2,5-3 μ. cr., septatis, ex cellulis 20-33 μ. longis formatis; conidiophoris parce ramosis, 3-3,5 μ. cr., ramulis dilatatis pseudo-sterigmata sæpius terna v. quaterna gerentibus; pseudosterigmatibus angustis, 12 × 2,5-3, basi rotundatis et sensim sursum tenuatis; conidiis longe catenulatis, ellipsoideis, demum maturis subglobosis 2,5 × 2,3.

Hab. in nucibus Juglandis regiæ Kiel Germaniæ.

45. Penicillum baculatum Westling \*) in Svensk Bot. Tidskrift IV, 8041 2, (1910) p. 143, cum ic. — Cæspitulis (coloniis) in gelatina pruni floccosis, albis, dein viridi-cæruleis, margine sterili, floccoso; hyphis sterilibus septatis, hyalinis, intricatis, 2-5 μ. cr.; conidiophoris apice ramoso-penicillatis, levibus, 3,5-6 μ. cr. ramulis I.<sup>mi</sup> ord. (matulis), 10-14 × 4,5-6, ramulis II.<sup>di</sup> ord. (pseudosterigm.) obclavatis 6,5-9 × 3-3,4, subternatis, apice catenigeris; conidiis ellipsoideis, catenulatis, levibus, 3,8-4,6 × 3-3,6; peritheciis flavis 100-250 μ. diam. tenui-tunicatis; ascis globosis v. ovoideis, hyalinis; sporidiis lenticularibus, margine subcanaliculatis, 5-6 × 4-4,8.

Hab. in foliis aliquot plantarum in Monte Areskutan in Jem-

<sup>\*)</sup> De Penicillii speciebus e grege Virentium optimam monographiam figuris illustratam, titulo Ueber die grünen Spezies d. Gatt. Penicillium, concinnavit el. R. Westling et in Arkiv for Bot. Stockholm, II, n. 1 (1911) edidit, speciebus novis pluribus auctam. Dolet his non posse eas recipere quia volumen nostrum ad annum 1910 tantum pervenit.

tlandia. — Ex peritheciis flavis tenui-tunicatis videretur *Eurotii* (Aspergilli) spec., sed quomodo ex *Penicillio*?

46. Penicillium vermiculatum Dang., Botaniste X (1907) pag. 123, 8042 tab. 16-20 et tab. 89, fig. 1. — Mycelio flavo; hyphis sterilibus filiformibus vix 5-6 μ. cr., septatis, ramoso-anastomosantibus; conidiophoris ascendentibus, septatis, gracilibus, apice plerumque bis verticillato-ramosis, ramulis ultimis obclavato-cuspidatis, sæpius ternis, sed etiam binis et non raro singulis; conidiis globulosis v. cuboideo-globosis, 2-3 μ. diam., supremis paullo amplioribus, catenulatis, facile secedentibus.

Hab. in culturis fungorum in laboratorio peractis, in Gallia. — Conceptacula ascophora facile evoluta, initio oblonga demum ellipsoidea: ascis sphæroideis 4-6-sporis; sporidiis ellipsoideis obtusis, spinulosis, hyalinis (dimensionibus non indicatis!). Contextus perithecii fibrilloso-prosenchymaticus.

47. Penicillium kiliense Weidemann, Centralbl. f. Bakter. etc. II Abt. 8048 XIX (1907) pag. 680, cum icon. — Cæspitulis viridibus; hyphis sterilibus 2,4-3,5 μ. cr., septatis, ex cellulis 22-28 μ. longis formatis; conidiophoris tantumdem crassis, ramis terminalibus 10-12 ≈ 3,5; pseudosterigmatibus modo phialiformibus, basi rotundatis, sursum tenuatis, modo æqualibus, 10 μ. long.; conidiis longe catenulatis isthmis angustis connexis, primo ellipsoideis, denique globosis, 3,3-3,8 ≈ 3-3,3, sub microscopio dilute viridibus.

Hub. in substantiis organicis in laboratorio Kiel eductum. — Notis biologicis imprimis dignoscendum.

48. Penicillium aromaticum-casei Johan-Ols., Centralbl. f. Bakter. 8044 Abt. II, IV (1898) p. 164, tab. 4-9, p. p. — Hyphis sterilibus, copiosis, penetrantibus, laxe ramosis, continuis; conidiophoris breviusculis, ascendentibus, flexuosis, filiformibus, sursum sæpe furcatis, apice pseudobasidiis fusoideis verticillatis paucis (3-4) terminatis; conidiis longiuscule catenulatis, globosis, subæqualibus, hyalilinis, 2-2,5 μ. diam.

Hab. in caseo, cui odorem aromaticum communicat, in Norvegia. — Diagnosis ex iconibus auctoris desumpta!

49. Penicillium cicadinum v. Höhn, Stzb. K. Ak. der Wiss. Wien 8045 CXVIII, Abt. I (1909) p. 405. — Hyphis cæspitosis, breviter ramosis, tenuibus, hyalinis, 2-3 μ. cr.; conidiis in catenulas usque 100 μ. longas et ultra, inter se parallele glutinatis, dispositis, oblongo-ellipsoideis fere cylindraceis, utrinque rotundatis guttulatisque 5-6 raro 7 ≈ 1,5-2.

Hab. in corpore, quod bysso alba obducit Cicadæ sp. in silvis Tjibodas Java. — Insecta vexat et necat. — Ex auctore species pari fere jure Oosporæ adscribi potest.

50. Penicillium coccophilum Saccardo, Not. Myc. IX Ann. Myc. v. 8046 V (1907) p. 178. — Effusum, parasiticum, carneolo-isabellinum, densiuscule mucedineum; hyphis sterilibus repentibus, parcis; fertilibus, seu conidiophoris, adscendentibus, brevibus, totis (cum ramis) 90-120 μ. altis, 5,5-6 μ. cr., parce septatis; ramis arrectopenicillatis, imis oppositis v. solitariis, superieribus bis 3-4-verticillatis, ultimis sensim sursum tenuatis; conidiis globosis v. subglobosis, exquisite verruculosis, majusculis, 8-9 × 8, carneolo-isabellinis, catenulatis.

Hab, ad ramos Fici capensis, parasitice in scutellis Ceroplastis Rusci pervasis a Thoracantha cyanea in horto bot. Panormi, socio Stilbo coccophilo (prof. Joann. Hect. Mattei).

51. Penicillium minimum Siebenmann Die Schimmelmyk. d. mensch. 8047 Ohres (1889), Guéguen, Champ, paras. p. 175. - Mycelio hyalino, ramoso, 2 μ. cr.; conidiophoris erectis illis Pen. crustacei similibus sed minoribus; conidiis sphæricis levibus, brunneo-nigricantibus, 2,5-3 µ. diam.

Hab. in otite acuta hominis in Germania.

GLIOCLADIUM Corda. — Syll. IV p. 84, X 528, XI p. 594, XIV p. 1048, XVIII p. 521.

1. Gliocladium elatum Sacc., Ann. Mycol. VII (1907) p. 434. - Can- 8048 didum, gossypinum, laxum, breviter effusum; hyphis sterilibus repentibus paucis, conidiophoris omnibus arrectis, prælongis. 1500 × 4-5, filiformibus, septatis, apice capitatis, capitulis globosoovatis, muco interiore diu arcte conglutinatis et sub vitro opacis, acido acetico vero solutis; pseudobasidiis bis verticillatis, primariis et secundariis fasciculato-ternatis v. quaternatis; conidiis catenulatis exiguis, subglobosis, levibos, 2,5-3 × 2,5, hyalinis.

Hab. in pileis vestustis udis subputrescentibus Schizophylli communis in calidariis Horti botanici patavini, Apr. 1909 (Aug. Nalesso). - Affine Gl. Hypomycetis Sacc. (= Penicillio Hypomycetis Sacc. Syll. IV, p. 80), differt vero conidiophoris 4-5-plo longioribus, etsi angustioribus, conidis sphæricis, habitatione in Schizophyllo nec in Stereo.

2. Gliocladium africanum Eichelb., Verh. Naturw. Ver. Hamb. 3 8049 Flg. XIV (1906) p, 37. - Solitarium, sparsum; hyphis sterili-

bus matricem penetrantibus; conidiophoris erectis, rectis, 170-270-600  $\approx$  8.9, apice non incrassatis, diaphane flavidulis, remote septatis, sursum pallidioribus, penicillioideo-ramosis, verticillo inferiori tri-ramoso, ramulis valde confertis; conidiis acrogenis, solitariis, simul cum ramis ramulisque, strato mucoso obvolutis, hyalinis, levibus, ovoideis  $4 \approx 2$ .

Hab. in ligno putrescente, socia Tilmadoche nutante, Amani Africæ orient.

3. Gliocladium prolificum Bainier, Bull. Soc. Mycol. (1910) p. 385, 8050 t. XXI. — Totum candidum; hyphis sterilibus repentibus septatis, hyalinis; conidiophoris ascendentibus brevibus cylindricis 1-3 septatis, 9-10 μ. cr., sursum 3-6-ramoso-penicillatis, ramis mox in ramulos arrectos obclavato-phialiformes iterato divisis; ramulis apice acutis conidigeris; conidiis copiosissimis, minutis, ex globoso ellipsoideis 6,3 × 4,2, initio, catenulatis, mox vero in capitulum mucoso-conglobatis.

Hab. in palea uda Graminacearum, Paris Galliæ. — St. ascophorus est Cephalotheca prolifica (Bain.) Sacc. et Trott., quam cfr. suo loco.

4. Gliocladium roseum Bainier, Bull. Socc. Myc. Fr. XXIII (1907) 8051 p. 111, t. XV, f. 1-6. — Mycelio repente, septato, ramoso; conidiophoris hyalinis assurgentibus filiformibus, septatis, sursum repetito ramosis, ramulis (pseudosterigmatibus) obclavato-phialiformibus et mox muco conglutinatis viridi-roseis, ovoideis, levibus, 5-6 ≈ 2,8, spicam elongatam demum formantibus.

Hab. in charta emporetica putri in Gallia

Gliocladium luteolum v. Höhn. Ann. Mycol. (1903) — Syll. XVIII 8052
 p. 521. — Hue spectat, teste v. Höhn., Fragm. Myk. VI, p. 169,
 Gliocladium piliforme Boud. Ic. Mycol. III pl. 587, non Stilbum piliforme Pers., nec Corda.

# BRIAREA Corda. — Syll. IV p. 85, XI p. 594.

1. Briarea gigantea Speg. Myc. Argent. V p. 415, in Anal. Mus. 8058 Nac. Buenos Aires XX (1910). — Cæspitulis tenerrimis sparsis v. vix. fasciculatis pallidissime chlorinis, erectiusculis; hyphis fertilibus erectis, 500-1500 × 20-25 × 10-12, septulatis apicem versus breviter ramulosis, deorsum chlorinis sursum hyalinis; conidiis ovoideo-subglobosis, chlorinis, 14-18 × 10-12, levibus, in catenulas simplices v. ramulosas, in ramululis acrogenas digestis.

Hab. ad anthodia subputrescentia Zinniæ multifloræ cultæ in hortis La Plata Argent. Amer. austr.

## HAPLARIA Link - Syll. IV p. 85, X p. 529, XVIII p. 522.

- Haplaria pallida (Harz) Lindau, Deut. Kr. Fl. Hyphomycet. VIII 8054 (1905) p. 229. Ita potius vocandum Acladium pallidum Harz Syll. IV, p. 87 observante cl. Lindau l. c. nam ejus conidiophora fere regulariter dividuntur.
- 2. Haplaria Citri Briosi et Farneti, Atti Ist. Bot. Pavia X (Extr. 8055 1906) p. 22, tab. VIII, fig. 5-14. Hyphis fertilibus valde ramosis, septatis, intus granulosis, 4-4,5 μ. cr., hinc inde papillosis ibique conidigeris, papillis excrescentibus et papillulas novas edentibus; conidiis in glomerulos 18 μ. diam. junctis, globosis v. ellipsoideis, continuis, hyalinis, intus granulosis, 6 × 4,5.

Hab. (culta) in gelatina cum aliis fungillis citricolis et hucusque numquam in fructibus Citrorum observata. Quoad ceteras notas biomorphologicas ofr. Auct. l. c. Revera species paradoxa et dubia.

## HYPHODERMA Fries — Syll. IV p. 89, X p. 530.

Hyphoderma effusum Fuck. Symb. Mycol. p. 363, Fungi rhen. 8056
 n. 241 (sine diagnosi).

Hab. in thallo Physciæ parietinæ et Ph. stellaris, socio Illosporio roseo, in Rhenogovia (Fuckel).

2. Hyphoderma sparsum Fuck. Symb. Mycol. p. 363, Fungi rhen. 8057 n. 239 (sine diagnosi).

Hab. in thallo variorum Lichenum, socio Illosporio aurantiaco, in Rhenogovia. — Cl. Lindau in Deut. Krypt. Flora, Pilze VIII p. 218, speciem hanc et præcedentem excludenda declarat; sed ex exempl. Fuckelianis (quibus nos quoque caremus) notas nullas manifeste eruere potuit.

# ACREMONIUM Link — Syll. IV p. 89, X p. 531, XVIII p. 523.

1. Acremonium Vitis Catt. Arch. Lab. Bot. critt. Pavia Vol. II-III, 8058 p. 60, t. VIII, f. 8-9 (1879). — Arachnoideum, albidum; hyphis repentibus varie ramosis, diaphanis, subtilissimis, obsolete articulatis, in telam araneæ sæpe longe lateque expansam laxe aggregatis; ramulis conidiophoris subulatis deorsum crassiusculis, versyll. fung. XXII (VII-1913)

ticillatis, plerumque quaternis, singulis conidia quaterna apice gerentibus; conidiis ovoideis, continuis, hyalinis 3-4  $\mu$ . longis tarde dilabentibus.

Hab. in cortice putrescente arborum variarum imprimis Vitis viniferæ, Casteggio Pavia, 1876 (A. MAESTRI).

2. Acremonium griseo-velutinum Speg., Myc. Argent. V, p. 416, in 8059 Anal. Mus. Nac. Buenos Aires XX (1910). — Tenuissimum, latissime effusum vix griseo-velutinum; hyphis superficialibus repentibus tenuibus hyalinis septulatis, ramulis erectiusculis continuis 50-75 × 5-6 non v. parce remoteque denticulatis ornatis; conidiis sæpius acrogenis, solitariis, e cylindraceo subfusoideis, continuis vel medio obsolete 1-septatis, levibus, 20-40 × 6-8.

Hab. in fluxo gummoso Casuarinæ strictæ in hortis La Plata Argentina Amer. austr.

3. Acremonium Sclerotiniarum Appel et Laubert, Arb. k. Biolog. 8060
Anst. f. Land u. Forstwirtsch. V. Heft III (1905) p. 148, f. 3.
— Effusum griseum; conidiophoris simplicibus v. pauci-ramosis; conidiis acrogenis, solitariis, hyalinis, ovoideis, 4,5-11 × 1,5-4,5.

Hab. parasitice in ascomatibus plus minusve deformatis Sclerotiniæ Libertianæ, in Germania.

4. Acremonium Potronii Vuill. in Bull. Soc. Sc. Nancy (1910) p. 19 8061 et tab. II. — Hyphis ramosis, septatis, vix 1 μ. lat., hyalinis, sæpius in cæspitulos isariæformes (Isariæ brachiatæ ad instar) intricatis; conidiophoris simplicibus normaliter divaricatis, rarius ramosis, phialiformibus, sed basi non septatis; ramusculo ultimo conidifero, elongato, 15-20 μ. longo, sursum tenuato apiceque truncato; conidiis successive formatis et discretim expulsis, roseis, ovoideis, breviter basi apiculatis, 4-5 ≈ 2-2,2.

Hab. e genu hydropico extractum, in Gallia. In sero et dauco cultum, 37 C. optime viget; 10 C. pigre crescit.

5. Acremonium araucanum Speg., Fungi Chilenses (1910) p. 179. — 8062 Effusum, arctiuscule adnatum, gossypinulum, citinuum; hyphis tenuibus, 25-100 × 5-7, confertiuscule ramulosis, densiuscule intertextis, obsolete septulatis; conidiis hinc inde vage insertis, ellipsoideis, hyalinis, grosse 1-2-guttulatis, 7-8 × 6.

Hab. frequens in Aspidioti sp. in pagina infer. foliorum Drymidis Winteri, Bahia de Corral Chile Amer. aust.

Acremonium minutissimum (Roze) Sacc. — Syll. XIX p. 10 — 8068
 Monoconidia minutissima Roze, Bull. Soc. Myc. Fr. XIII (1897)
 p. 83, tab. VI, fig. 27. — Conidiophoris sæpius furcatis, filifor-

mibus, sursum tenuatis, continuis, hyalinis, apice monosporis, circ. 40  $\mu$ . long.; conidiis ellipsoideis,  $5 \approx 3$ , hyalinis, levibus.

Hab. parasitice in plasmodio Amylotrogi ramulosi in Gallia. — Stirps dubia.

7. Acremonium Bonordenii Sacc. — Syll. IV p. 91. — Huc verisi- 8064 millime spectat *Menispora alba* Karst. Deutsche Fl. p. 61 (nomen) et p. 65, f. 10.2 (icon) æque in tuberibus Solani tuberosi in Germania lecta.

RHINOTRICHUM Corda. — Syll. IV p. 91, X p. 531, XIV p. 1049.

Rhinotrichum Sumstinei Peck, Bull. Torr. Bot. Club XXXIV 8065 (1907) p. 103. — Diffusum, tenue, fusco-brunneum; hyphis repentibus v. ascendentibus, parce ramosis, flavidis, septatis, articulo ultimo v. penultimo denticulato, 8-12 μ. cr.; conidiis globosis, hyphis concoloribus, 12-16 μ. diam.

Hab. in ligno emortuo decorticato, Pennsylvania Amer. bor. (D. R. Sumstine).

**SPOROTRICHUM** Link — Syll. IV p. 96, X p. 532, XI p. 594, XIV p. 1050, XVI p. 1031, XVIII p. 524.

Sporotrichum anthophilum Peck N. York State Mus. Bull. n. 105, 8066 (1906) p. 28. — Hyphis repentibus, intricatis, ramosis, continuis v. parce septatis, latitudine ludibundis, 2-6 μ. cr., hyalinis, stratum gossypinum laxum formantibus; conidiis globosis v. late ovoideis, 4-7,5 μ. diam. in apice acuto ramulorum brevium insertis.

Hab. parasitice in petalis et staminibus Dianthi Caryophylli que decolorantur, necantur et excidunt.

2. Sporotrichum campyleum Sacc. sp. n. — Cæspitulis byssinis, can-8067 didis, pulvinatis, 0,5-2 mm. lat., laxe intertextis; hyphis sterilibus tenerrimis, filiformibus, prostratis, subcontinuis, parce ramosis, 1 μ. cr., levibus, rectis v. undulatis, ramulis filiformibus continuis, 30-40 × 1,5, plerumque distincte flexuosis v. sigmoideis v. hamatis, apice tenuatis, modo sterilibus, modo conidiophoris; conidiis acrogenis (semper?) typice oblongis et distincte curvatis, 4-6 × 2-25, hyalinis, farctis, levibus, rarius subæquilateris et rarissime obtuse trigonis.

Hab. in foliis, ramulis, floribusque (pro herbario male exsiccatis) Epilobii Dodonæi, Agordo 1905, omnino saprophytice.

— Species singularis, conidiis lunulatis ramulisque sæpius tortuosis v. sigmoideis facile distincta, sed a typo recedens, et ob

hyphas tortas cum formis conidiophoris Ctenomycetis, Eidamellæ etc. comparanda.

3. Sporotrichum Quercuum Shear, Bull. Torr. Bot. Club. XXXIV 8068 (1907) p. 306; Sp. sulfureum Grev. f. Quercuum Thüm. M. U. n. 986 (absque diagnosi). — Cæspitulis subglobosis, floculosis, gregariis v. sparsis, 120-1000 μ. diam. primo sulphureis dein viridulis, ex glomerulis globulosis conidiophororum constitutis et hyphis sterilibus ramosis, laxis, flavidis suffultis; conidiis viridulis (coacervatis), subglobosis, 1,5-2 μ. diam., in ramulorum apicibus acrogenis; ramulis ultimis 6 μ. longis.

Hab. in foliis emortuis Quercus coccineæ et Castaneæ dentatæ, New Jersey (Ellis) Maryland (Shear).

4. Sporotrichum fumosellum Bresadola in Jaap Ann. Mycol. VI 8069 (1908) p. 214 (nomen nudum).

Hab. in caulibus putrescentibus Aconiti sp. Wolkenstein in alpibus Austriacis.

5. Sporotrichum tenuissimum Grev. Descript. seven new Scott. Fun- 8070 gi, in Mem. Werner. Soc. IV, part. II (1821-22) p. 2, t. V, f. 2 (extr.) — Candidum, latum, telæforme adhærens; hyphis (pilis) dense intertextis, tenuissimis, raro ramosis; conidiis globosis, minutis, inspersis.

Hab. in trunco emortuo, sicco imprimis in cortice, Braid Hermitage Scotiæ. — Pro notitia speciem attualimus sed ex diagnosi et icone vix definiri potest.

Sporotrichum æruginosum Schw. — Syll. IV p. 112. — Var. 8071 microsporum Karst., Act. Soc. pro Fauna et Fl. fenn. XXVII 4 (1905) p. 16. — Conidiis minoribus, nempe 1-2 μ. diam., a typo recedit.

Hab. supra Ditiolam radicatam prope Kuopio Fenniæ (Lönnboнм).

7. Sporotrichum biparasiticum Bubák, Bull. Herb. Boiss. 2 sér. VI 8072 (1906) p. 486, t. 15, f. 6-7. — Mycelio inter hyphas Fusarii Sphæriæ inserto, repente, copiose septato, repetite ramoso, 1-2,5 μ. diam., hyalino, apicibus conidigero, ibique colore pallide roseo suffuso; conidiis breviter cylindraceis, utrinque rotundatis, 4-6 × 1-1,5, hyalinis.

Hab. ad ramos emortuos Coronillæ Emeri pr. Ulcinj Montenegro, parasiticum in Fusario Sphæriæ quod quidem parasitatur in Valsaria rubricosa.

8. Sporotrichum antarcticum Speg., Myc. Argent. V, p. 416, in 8078

Anal. Mus. Nac. Buenos Aires XX (1910). — Cæspitibus quandoque contractulis quandoque diffusis et arachnoideis, 2-10 mm. diam., candidis v. obsoletissime roseis; hyphis repentibus tenuibus, 1,5-2  $\mu$ . cr., dense ramulosis, ramulis brevibus,  $10-20 \times 1-1.5$ , sæpius furcatis; conidiis acrogenis?, ellipsoideis, utrinque rotundatis,  $4-6 \approx 2-3$ , hyalinis, levibus.

Hab. in thallo vivo Theloschistidis cujusdam ad saxa Orcadas australes Argentina, Amer. austr.

9. Sporotrichum lanatum Wallr. — Syll. IV p. 102. — Adde: co- 8074 nida globosa, albida, 5 μ. diam., sporophoris brevibus fulta, sæpe glomerulata prope ramorum apices.

Hab. quoque ad Halifax Britanniæ. — Cfr. A. L. Smith, Trans. Brit. Myc. Soc. III (1910) p. 223.

10. Sporotrichum roseolum Oud. et Beijerinck in Neder. Kruidk. 8075 Ark. 3 sér., II, p. 910 (1903). — Cæspitulis dilute roseis, late effusis; hyphis repentibus, irregulariter ramosis, parce septatis, tenerrimis, ramulos fertiles seu conidiophora ascendentia simplicia v. ramosa emittentibus; conidiis terminalibus, globosis v. ovoideis, subhyalinis, coacervatis roseolis, 3-5  $\mu$ . diam. v. 4-5  $\approx$  3-4. vacuolis et guttulis nullis.

Hab. in charta bibula uda, in laboratorio Delft Hollandiæ. 8076 11. Sporotrichum expansum Niessl, in J. Paul. Verh. naturf. Ver. in Brünn, XLVII Extr. p. 28 (1909). - Pannosum, intertextum; floccis simplicibus v. laxe ramosis, hyalinis, conidiis adspersis, oblongis subcylindraceis, obtuse rotundatis, 3 × 0,52, virescentibus.

Hab. in charta humente ex calce phosphorica, Schönberg Moraviæ.

12. Sporotrichum Schenkii Hektoen Perkins et Journ. of exper. Medic. 8077 (1900) p. 77, De Beurm. et Goug. Les sporotrichoses, Paris (1912) p. 47. fig. ad p. 49. - Mycelio filiformi, vage ramoso, hyalino, typice flexuoso, septato, 1,5-2 µ. cr.; conidiis nunc pleurogenis sessilibus nunc in apice ramulorum numero vario conglomeratis, obovatis v. ellipsoideis, continuis, levibus, 3-5 µ. longis, hyalinis.

Hab. in ulceribus canis et muris et (inoculatum) quoque in Cavia et Cuniculis, in Britannia et Gallia. - Quoad biologiam, culturas et vim pathogenam cfr. De Beurm. et Goug. l. c.

13. Sporotrichum Beurmanni Matruch. et Ramond, C. R. Soc. Biol. 8078 Paris LIX (1905) p. 379. — De Beurmann et Gougerot, Bull. et Mem. Soc. Med. Hôpitaux de Paris (1908) 6 pp., De Beurm. et Goug. Les nouv. mycos. p. 128-129, fig. 13-14, et Les sporo-

trichoses, Paris (1912) p. 61, f. 4-21. — Mycelio repente, tenui, 2  $\mu$ . cr., septato, hyalino, copiose intricato-ramoso; conidiis copiosis, solitariis sed sæpius conglomeratis et spiculas subcylindricas 10  $\mu$ . longas in ramis mycelii formantibus, initio subpiriformibus, subpedicellatis (pedicello 1-2  $\times$  0,5) mox solutis ovoideis, hyalinis dein brunneis. 3-5  $\times$  2-4.

Hab. in tumoribus subcutaneis interioribusque in toto corpore disseminatis hominis in quem morbum s. d. sporotrichosim inducit in Britannia, Italia, Gallia, Germania, America etc. — Chlamydosporæ adsunt. — Sec. cl. Gougerot ll. cc. c. icone, species rarius occurrit silvatica et saprophytica in plantis emortuis e. g. in caryopside Avenæ in Alpibus gallicis (Gougerot legit). Culta et inoculata in muribus, directe non pathogena evasit, sed de mure translata in murem pathogena fit et necatrix. — Var. indicum Castellani. Cfr. De Beurm. et Goug. Les sporotrichoses p. 143. — Hyphis paullo crassioribus 3-4 μ. cr. In hominibus quibus aliam sporotrichosim affert, Colombo Ceylon. — Var. asteroides Splendore. Cfr. De Beurm. et Goug. l. c. p. 138, fig. 22-23. Dignositur cystibus parasitariis globosis, 4-12 μ. diam. processibus bacillaribus, 4-10 μ. longis radiantibus præditis. — In morbo sporotrichosi peculiari hominis in Brasilia.

14. Sporotrichum Jeanselmei Brumpt et Langeron, Bull. et Mem. 8079
Soc. Medic. des hôpitaux de Paris, (1910) p. 792, De Beurm. et Goug. Les sporotrichoses, Paris (1912) p. 144, fig. 24, p. 145.
— Hyphis filiformibus, parcissime ramosis, continuis, 1,5-2 μ. cr., ramis hinc inde conidiophora brevissima pleurogene emittentibus; conidiis in conidiophori hyphæque primariæ apice vario numero conglomeratis, sphæroideis 2,5-3,5 μ. diam. interdum subpiriformibus, 3-3,7 × 2,5-2,8, subhyalinis, brevissime pedicellatis.

Hab. in homine sporotrichosi quadam ægro et (inoculatum) in muribus, in Gallia. — Spor. Beurmanni affine. Quoad differentias ab hac specie, biologiam, culturam, vim pathogenam etc. efr. De Beurm. et Goug. 1. c.

15. Sporotrichum Gougeroti Matruch. in Arch. de Parasitol. (1907-8080 1910) De Beurm. et Goug. Les Sporotrichoses, Paris (1912) pag. 151, fig. 25 p. 152. — Hyphis filiformibus, septatis, parce ramosis, 2-3 μ. cr., subinde 5-6 μ. cr., articulis subinde inflatulis; conidiis acro-pleurogenis, solitariis v. sæpius glomerulatis, ovoideis, rarius subpiriformibus, 4-8 μ. long., hyalinis, sessilibus, rarius brevi-pedicellatis.

Hab. in homine, jam phthisi et syphilide affecto cui sporotrichosim peculiarem attulit, in Gallia. — Quoad notas biologicaset, pathogenas, culturas etc. cfr. De Beurm. et Goug. l. c. — Sporotrichum Dori De Beurm. et Gong. l. c. p. 161, fig. 26, p. 162 (ex Dor) sporotrichosim quoque generans, ex icone l. c. potius schizophyta videtur.

16. Sporotrichum dispar Vidal in Annal. Derm. et Syph. (1882) pag. 8081
22, Cattaneo et Oliva in Arch. Labor. Critt. Pavia V, p. 129.
— Conidiis globosis, 1-3 μ. diam., hyphis mycelicis paucis, tenuibus intermixtis.

Hab. in homine, in quem pithyriasim circinatam affert in Gallia. — Species perdubia.

17. Sporotrichum corii (Corda) Sacc. et Trav. Syll. XX pag. 872, 8082 Chrysosporium Corii Corda in Sturm, Deutschl. Fl. III fasc. 13, p. 85, t. 43 (1833). — Late effusum, aureum; hyphis prostratis ramosis, albis, continuis; conidiis sæpe pleurogenis, globosis, levibus, flavis, majusculis

Hab. in corio, præcipue bubalino sinensi, in Bohemia. — Quoad genus dubia species.

18. Sporotrichum? fallax (Schulzer) Sacc. et Trav. — Syll. XX 8083 p. 872. — Miainomyes fallax Schulz. v. Mügg. in Verh. zool. bot. Ges. Wien (1871) p. 1257, t. 13, f. 37. — Hyphis sterilibus prostratis, intricatis, fertilibus erectis v. curvatis, hyalinis; conidiis pleurogenis, cylindraceis, copiosissimis, utrinque obtusulis, rectiusculis, hyalinis, 6-8 μ. longis.

Hab. in ramis Cydoniæ vulgaris, socia Diplodia Cydoniæ, in Hungaria — Forte Tuberculariæ forma depauperata et soluta.

MONOSPORIUM Bon. — Syll. IV p. 113, X p. 535, XIV p. 1051, XVIII p. 525.

1. Monosporium apiospermum Sacc. in Ann. Mycol. (1911) XI p. 254. 8084 — Cæspitulis albis, dein leviter fuscis, byssinis, densiusculis, 3-5 mm. latis (in culturis); hyphis mycelialibus repentibus, filiformibus, intricatis; conidiophoris decumbentibus (non erectis!) vage parcissimeque ramosis, parce septatis, 2,5-3 μ. cr. hyalinis, hinc inde guttulatis, ramis ascendentibus, sursum paullo tenuatis, monosporis; conidiis continuis piriformibus, oblongis, interdum obovatis ima basi acutatis truncatisque, 14 × 5,6, interdum 11 × 5,7, rarius subrotundis, intus varie guttulatis v. granulosis, extus le-

vibus, longioribus, sæpe infra medium leviter coarctatis, initio hyalinis demum dilutissime sordide roseo-flavidis.

Hab. cultum in tubere Solani ex foculis granulomatosis cutaneis nec non subcutaneis mollibus sed epidermide omnino integra tectis pedis humani, Jan. 1911, in nosocomio dermopathico universitatis Sassari Sardiniæ (Prof. doct. Fr. Radaeli) — A typo generis Bonord. et Sacc. recedit habitu decumbente, non verticillioideo, in quo (dempta fructificatione secundaria) ad Monosporium (Eidamia) acremonioides Harz accedit. Cl. Prof. Radaeli speciem cum observationibus pathologicis descripsit in Giornale Italiano delle malattie veneree e della pelle, anno 1911, fasc. I\*).

2. Monosporium meliolicola Speg, Myc. Argent. V, p. 416, in Anal. 8085 Mus. Nac. Buenos Aires XX (1910). — Hyphis repentibus tenuibus, 3-4 μ. cr., flexuosis, ramulosis, arcte substrato adnatis; ramulis fertilibus quandoque sparsis et solitariis, quandoque geminatis v. ternatis spiniformibus rectis, 50 × 2, acutis, monosporis; conidiis e cylindraceo-ellipsoideis, 6-8 × 2,5-3, grosse biguttulatis, hyalinis, levibus.

Hab. ad setulas mycelii Meliolæ bidentatæ in foliis vivis Bignoniaceæ cujusdam prope Bompland Misiones Argentina Amer. austr. (P. Jorgensen).

**BOTRYTIS** Mich. — Syll. IV p. 116, X p. 536, XI p. 596, XIV. p. 1052, XVI p. 1032, et 1156, XVIII p. 526.

1. Botrytis cinerea Pers. — Syll. IV p. 129. — Var. Dianthi Vo- 8086 glino in Ann. R. Accad. Agric. Torino LII (1909) p. 303. — A typo præcipue distinguitur conidiophoris semper brevioribus; conidiis ellipsoideis, 8 × 6, rarius usque ad 10-12 × 6-8; sclerotiis hemisphærico-applanatis, nigris v. brunneis, 0,5-2 mm. lat.

<sup>\*)</sup> Postquam Monosporii apiospermi, a el. prof. Radaeli accepti, diagnosim protuli (1911), el. prof. Jul. Tarozzi Universitatis mutinensis, dissertationem suam titulo Ricer he anatomo-patologiche, bacteriologiche e sperimentali sopra un caso di actinomicosi del piede, Taurini jam ab anno 1909 editam, una cum exemplaribus ipsius fungilli originalibus, communicavit. Tam a descriptione et iconibus quam a speciminibus clare patet de eadem ac Radaeliana specie tractari. Observandum quoque utramque, ubi coacta sit in corporis interioribus cellulis, habitum actinomycoticum omnino sumere; qua de re tota quæstio de Actinomycete denuo, ut videtur, retractanda et inquirenda est.

Hab. ad basim plantularum Dianthi Caryophylli culti, qui maxime vexatur et tandem marcescit, in hortis, Torino, Piemonte, nec non in Germania (HILTNER). - Adsunt formæ Ocymi Voglino in Ann. R. Accad. Agricolt. Torino LI (1908) p. 32-33 extr. et Punicæ Voglino I. c., prima in plantis Ocymi Basilici altera in fructibus Punicæ Granati in Pedemontio.

- 2. Botrytis Pæoniæ Oudem. Syll. XIV p. 1052. Quoad dif- 8087 fusionem et nocumenta ejus in America bor, et ejus sclerotiorum generatione cfr. Flora Patterson, Charles et Veihmeyer, Un. St. Depart. of Agricult. Bur. of Plant. Ind. Bull. 171 (1910) pag. 11 - 12
- 3. Botrytis umbrina Bonorden, Bot. Zeitg. (1853) pag. 288, tab. 7, 8088 fig. 9. — Cæspitulis ferruginoso-umbrinis; hyphis septatis sursum ramosis, ramulis brevibus, obtusis, subinde apice incrassatis; conidiis globoso-ovoideis umbrinis.

Hab in ramis Vitis viniferæ ex Italia. — Verisimiliter forma Botr. vulgaris v. B. cinereæ.

4. Botrytis ampelophila Speg., Myc. Argent. V, p. 417, in Anal. 8089 Mus. Nac. Buenos Aires XX (1910). — Aspergilliformis, 3-5-cæspitosa, 1-5 mm. alt. 20-22 μ. diam. bas. 10-16 μ. diam. apice, cinereo-rufescens; hyphis erectis deorsum chlorinis simplicibus sursum hyalinis apiceque breviter alterne ramosis, ramulis patentiusculis sublobatis, 20-30 > 5-6, sub vertice coarctatulis et sub coarctatione lobulis 2 obovatis retrorsis ornatis; conidiis in ramulorum apicibus capitatis, subglobosis, 8-14 × 7-12, subhyalinis, levibus.

Hab. abunde ad sarmenta languida Vitis ripariæ in hortis La Plata Argentina Amer. austr.

5. Botrystis Novaesii Fr. Noak ap. C. Hugues in La Rivista Vit. 8090 Enol. di Conegliano (1910) p. 509. — Affinis B. cinerece.

Hab. in maculis Vitis viniferæ a Cercospora viticola generatis in Campo Novaes, Capoeira grande Brasiliæ. - Teste auctore species vivitur symbiotice cum Cercospora, cui putatur utilis.

6. Botrytis parasitica Cavara — Syll. X p. 536. — Var. Colchici 8091 Voglino in Annali R. Accad. Agric. Torino LII (1909) p. 302. - Alba, dein cinerescens; hyphis 400-1000 × 20-24, ramosis, ramis 2-3-furcatis, ultimis spinuloso-sporigeris; conidiis ellipsoideis v. ovoideis plerumque 22 × 16, nonnullis subpiriformibus, 28 × 18. primo incoloribus, demun cinereo-pallidis; mycelio intramatricali

ramoso filiformi, nunc 3-4 μ., nunc 6-7 μ. crasso, pluriarticulato; sclerotiis in partibus exsiccatis minutis nigris.

Hab. in foliis Cochici autumnalis que arescunt et contorquentur, pracipue ad eorum apicem, Alpignano, Piemonte. -Conidiis majoribus a typo imprimis distinguitur. — Var. Armeriæ Voglino in Annal. R. Accadem. Agricolt. Torino LIII (1910-1911) p. 580. — Sclerotiis copiosis, nigris, ellipsoideis, convexis, 0,5-1,5 mm. longis; conidiophoris (medio udo evolutis) subfasciculatis, fuligineis, 200-320 × 15-20; conidiis ellipsoideis v. ovoideis, 12-17 × 8-12, illis B. parasiticæ similibus. — In scapis floralibus Armeriæ magellensis in hortulo alpino «Chanousia » cultæ, Piccolo S. Bernardo Ital. bor. — Scapos juniores necat et putrefacit.

7. Botrytis platensis Speg., Myc. Argent. V, p 417, in Anal. Mus. 8092 Nac. Buenos Aires XX (1910). - Sparsa v. laxe gregaria; hyphis sterilibus repentibus laxis ramulosis subchlorinis hinc inde ramulos solitarios v. pauci-cæspitulosos erectos (1-3 mm. long. 10-15 μ. cr.) laxe septulatos deorsum subfumosos sursum hyalinos emittentibus; ramulis e cylindraceo subfusoideis 50-100 × 5-7, sursum coarctatulis et apice modice ovato-capitatis 12 × 1,5, levibus, hyalinis; conidiophoris crassis subcruciformibus, obtuse trilobis, 15 × 1,5; conidiis ellipsoideis v. ovoideis 7-10 × 4-5, hyalinis, levibus pseudosterigmate deciduo, 2-3 × 1 suffultis.

Hab. vulgata ad folia caulesque plantarum cultarum in calidario, La Plata Argentina Amer. austr.

8. Botrytis coccotrichoidea Sacc. in Ann. Mycol. X (1912) p. 314. — 8093 Cæspitulis majusculis, pulvinatis, ambitu irregularibus, 2 mm. latis, sordide griseis, subvelutinis; hyphis fasciculatis, cylindraceis, prælongis, 8-9 µ. cr., septatis, subhyalinis, sursum irregulariter ramosis, 7 µ. cr., apicibus tenuiter denticulatis; conidiis ellipsoideis, utrinque rotundatis, 14 × 12, basi sæpius minute apiculatis, levibus, intus granuloso-farctis, isabellinis.

Hab. in cortice et ligno betulino, Blue Mountain Lake N. Y. Amer. bor. Aug. 1911 (Doct. et Domina FAIRMAN). — Affinis Botryti coccotrichæ a qua imprimis distinguitur conidiis dimidio minoribus, pallidioribus etc.

9. Botrytis latebricola Jaap, Verh. Bot. Ver. Prov. Brandb. L (1908) 8094 p. 47. — Cæspitulis floccosis, dein expansis, albis, senio flavescentibus; conidiophoris erectis, ramosis, septatis, hyalinis v. flavidis, 150 × 7-10, apicibus plerumque clavato-incrassatis, denticu-

lis minutis sporigeris præditis; conidiis ovoideis, ellipsoideis v. ovato-oblongis, levibus, hyalinis v. senio flavidulis, intus minute granulosis, juventute pluribus connexis, uno v. binis polis distincte apiculatis,  $10-22 \approx 9-12$ .

Hab. in truncis putridis Alni glutinosæ et A. incanæ, in truncis cavis Fagi, Hamburg, nec non in ligno Piri Mali pr. Triglitz (JAAP).

10. Botrytis gigantea Letellier Fig. de Champ. Suppl. Bull. t. 709, 8095 fig. 1 (1842) (sine diagnosi).

Hab. ad ligna in Gallia. — Ex icone: cæspituli ampli, depressi, albidi; hyphæ conidiophoræ elatæ a basi ad apicem bis ascendenti-ramosæ, ramuli quam hypha primaria multo tenuiores; conidia in ramulorum apice plurimæ conglomeratæ, globosæ, hyalinæ. Species vix amplius extricanda.

11. Botrytis ochracea Letellier, Figur. Champ. suppl. in Bull. tab. 8096 709, fig. 2 (1842) (Diagnosis desideratur).

Hab. in ramis emortuis in Gallia. — Ex icone: cæspitulis hemisphærico-pulvinati, laxe gregarii, fulvi; hyphæ conidiophoræ ascendentes semel v. bis parce ramosæ, fulvo-ochraceæ, æquales; conidia globulosa (?) in ramulis acrogena, glomerulata. — Hæc species certe diversa est ab homonyma posteriore (Cfr. Syll. IV p. 137) sed cum ea ex icone numquam sit extricanda, nomen posterioris non est mutandum.

12. Botrytis Pistiæ Baccarini, Bull. Soc. Bot. it. (1908) p. 31. — 8097 Mycelio tenui arachinoideo in foliorum parenchymate abscondito; hyphis erectis fertilibus per stomatum fissuras exsilentibus; hyphis fertilibus in cæspitulis tenuibus gregariis, remote septatis candidis, sursum ramosis; ramis sparsis, sub angulo recto patentibus, interdum inflato-rhomboideis, ad varicem ramosis, ramulis brevibus in vesiculam globosam muriculatam dilatatis; conidiis plurimis glomerulatis, ellipsoideis, 5,5-6,3 × 3,2 achromis, pseudosterigmatum brevissimorum ope, vesiculis terminalibus infixis.

Hab. in foliis languentibus Pistiæ Stratiotis quæ enecat, in horto bot. florentino. — Botr. acmosporæ Sacc. affinis sed conidiis ellipsoideis nec sphæroideis præcipue diversa.

Botrytis uredinicola Peck, Bull. Torr. Bot. Cl. XXXVI (1909) 8098
 p. 155. — Cæspitibus 1-2 mm. latis, hypophyllis, mollibus, niveis; hyphis breviusculis, sparsis, ramosis, septatis, ramis brevissimis; conidiis globosis, hyalinis, 8-10 μ. latis.

Hab. parasitica in soris Uredinis cujusdam in foliis Panici

virgati, Stockton Kansas Amer. bor. (E. Bartholomew). — Botr. piluliferæ Sacc. proxima sed habitu et conidiis minoribus diversa.

14. Botrytis Melolonthæ Sacc. in Ann. Mycol. X (1912) p. 320. — 8099 Effusa, albida, densiuscula, submembranacea, vix velutina; hyphis filiformibus confertis, sursum irregulariter iterato-ramosis 2 p. cr., subcontinuis, hyalinis, parte fertili circ. 25–35 μ. alta; conidiis ad ramulos acrogenis, ellipsoideis, minutis, hyalinis, 2,5-3 × 1,5, continuis.

Hab. in superficie inferiore corporis Melolonth a vulgaris in Horto bot. Patavino, Nov. 1898. — A Botryte tenella differt conidiis ovoideis, paullo majoribus.

15. Botrytis pyogenes Fayod, in Auché et Le Dantec, Arch. de 8100 Méd. exper. (1894) p. 853, Guéguen, Champ. paras. p. 249. — Mycelio pannoso, irregulariter septato; conidiophoris hyalinis alterne ramosis (non verticillatis) apicibus acuminatis conidigeris; conidiis plerumque binis rarius 1-3-4, hyalinis, ovoideis, 2 μ. long., strato mucoso obductis, utrinque fusco-guttulatis (?).

Hab. in pure abscessus hominis diabetici in Gallia.

16. Botrytis polysperma Kützing, Philos. Bot. II, p. 36 (1852) tab. 19, 8101 fig. 11. (nomem nudum).

Hab. ad vegetabilia in Germania. — Observante cl. Lindau, Deut. Krypt. Fl. Pilze VIII p. 304, ex icone auctoris species verisimiliter collidit cum Botryte cinerea v. affini.

17. Botrytis? Rivoltæ Sacc. — Botrytis fusca Rivolta, Parass. veget. 8102 p. stud malatt. p. 487, tab. 7, fig. 197 (1873) non Sacc. — Arachnoidea, sordide fusca; hyphis copiosis, modo continuis guttulatis, modo septatis ex articulis ovoideis formatis; conidiis hinc inde glomeratis ovoideis v. sphæroideis, magnitudine satis varia, minute 1-2-guttulatis.

Hab. in citrato calcico in Etruria (T. Passinari). — Quoad genus dubia stirps.

GRAPHIDIUM Lindau in Rabenh. Krypt. Fl. Pilze IX p. 748 (1909). (Etym. a graphidion, parvus stilus). — Mycelium parasiicum endogenum; conidiophora erumpentia, copiose ramosa, ramis trichotomicis v. dichotomicis, ultimis cuspidatis sporigeris, hyalinis, tenuissimis; conidia oblongo-cylindracea, solitaria, continua, hyalina, muco carentia.

1 Graphidium Corrensi Lindau l. c. p. 748, cum icon. — Mycelio en- 8103

dogeno, septato, noduloso; cæspitulis vix conspicuis; conidiophoris ex stomatibus pluribus fasciculatim exeuntibus hypha primaria crassiore suffultis, ramulis ultimis cuspidatis; conidiis oblongoteretiusculis, hyalinis,  $3 \times 1$  (ex icone).

Hab. in floribus Cerastii pallentis, C. pumili, C. semidecandri in quibus sterilitatem causat in Brandenburgia, Rhenogovia, Gallia et forte Dania (CORRENS).

- OVULARIA Sacc. Syll. IV p. 139, X p. 540, XI p. 597, XIV p. 1053, XVI p. 1034, XVIII p. 528.
- 1. Ovularia mlnutissima Syd., Mycoth. gem. fasc. XIV-XV n. 732 8104 (1908) Ann. Mycol VI (1908) p. 480. Maculis amphigenis, orbicularibus vel ellipticis, ca. 3-6 mm. longis, brunneolis, plerumque purpureo-marginatis; cæspitulis hypophyllis, plus minus dense aggregatis, minutissimis, oculo nudo haud vel vix perspicuis, albidis; hyphis fasciculatis, non septatis, hyalinis, 20-40 × 2-4, apicem versus torulosis denticulisque paucis præditis; conidiis oblongo-ovoideis, utrinque rotundatis, continuis, hyalinis, 7-10 × 3-5.

Hab. in foliis Hyperici quadranguli, Riesengebirge Weisswassergrund Germaniæ.

2. Ovularia Vitis Richon — Sacc. Syll. X p. 540. — Sec. Bubak 8105 Ann. Myc. VI (1908) p. 25, cum icone, species ita dignoscitur: mycelio intermatricali, folium totum penetrante, hyphis hyalinis, intricatis 0,7-1 μ. cr. per stomata hypophylli exeuntibus et hypostroma tuberculiforme, 30-50 μ. diam. demum brunneum formantibus; conidiophoris ex hypostromate oriundis, hyalinis, continuis, sursum 4-denticulatis, cæspitulos minutos niveos formantibus, 15-25 × 2-3; conidiis ovoideis subinde fusoideis, rarius breviter cylindraceis, 5-11 × 3-4, basi rotundatis, apice acutis, hyalinis.

Hab. in foliis Vitis viniferæ in Gallia et Austria. — Species Richonii vix nomine nota, tamen eadem videtur, observante cl. Bubák.

3. Ovularia tuberculiniformis v. Höhn. Oest. Bot. Zeitschr. LV 8106 (1905) p. 187. — Maculis sordide flavidis, sæpius minutis, confluentibus; cæspitulis hypophyllis, e pallido roseolis, internerviis, angulosis ex tuberculis numerosis subrotundis 20-120 μ. lat., firmis, crebris formatis; conidiophoris simplicibus, continuis, breviter clavulatis, 20 × 5-6, sursum denticulos 1-6 obscuros ferentibus;

conidiis exacte sphæricis, basi apiculatis, 10-13 µ. diam., hyalinis, tenui-tunicatis.

Hab. in foliolis Astragali Ciceris ad Klosterneuburg, pr. Vindobonam Austriæ. — Interdum cæspituli ex paucis conidiophoris efformantur, quæ tunc ex stomatibus erumpunt. — Ob tubercula majuscula firma species ad Tuberculinam nutat.

4. Ovularia Rubi Bubák, Beitr. Pilzfl. Ung., in Növénytani Közle-S107 mények (1907) Heft 4 Extr. p. 39. — Maculis epiphyllis, sparsis v. gregariis, rotundatis v. oblongis v. irregularibus, sæpe confluentibus, brunneis, medio alutaceis arescentibus, 2-4 mm. diam.; conidiis paucis fasciculatis ex stomatibus erumpentibus epiphyllis, breviter cylindraceis sursum conspicue tenuatis, ibique curvatis, deorsum sæpe inflatulis, continuis, hyalinis, 10-15 × 2,5; conidiis oblongo-cylindraceis, utrinque rotundatis v. ad basim acutatis, hyalinis, 9-13 × 2,5-3,5.

Hab. in foliis vivis Rubi sp. prope Orsova Hungariæ (Bubak).

5. Ovularia Buxi Oudem. in Ned. Kruidk. Arch. 2 sér. V, p. 173 8108 (1888). — Cæspitulis minutissimis, albis; conidiophoris erectis, simplicibus, septatis, apice rotundatis, hyalinis, 120-140 × 5; conidiis ovoideis v. oblongis, 12-16 × 5-7, hyalinis.

Hab. in foliis Buxi sempervirentis pr. Nijkerk Hollandiæ (Oudemans).

6. Ovularia Gunneræ Speg., Fungi Chilenses (1910) p. 180 cum 8109 icon. — Maculis amphigenis anguloso-orbiculatis, inferne tabacinis, superne e tabacino purpurascentibus, 3-25 mm. diam.; acervulis hypophyllis confertis penicilliformibus, candidis, ex 3-12 hyphis cylindraceis, gracilibus, 50-75 × 3-4, parce septatis, sursum 3-4-denticulatis efformatis; conidiis cylindraceis utrinque obtusis, rectis, magnitudine ludentibus, 4-20 × 2-3, hyalinis, unilocularibus.

 $\it Hab.$  frequens in foliis vivis Gunneræ chilensis, Huelque Valdivia Chile America austr.

7. Ovularia Epilobii Lindr. Mykol. Mitteil n. 15 in Acta Soc. pro 8110 Fauna et Fl Fenniæ, XXVI (1904) p. 18. — Maculis amplis, plura cm. long., irregularibus, confluentibus et sæpe majorem folii partem occupantibus, griseis v. griseo-brunneis, cæspitulis hypophyllis, minutis, e paucis conidiophoris formatis, albis; conidiophoris erectis, hyalinis, continuis, rectis curvulisve, 1-3-denticulatis, 35-58 × 6 (basi); conidiis hyalinis, continuis, levibus, anguste ellipsoideis v. obovatis, 14-18 × 6-8.

Hab. in foliis Epilobii palustris in Tavastia australi Fenniæ. — Conidia germinando conidia secundaria minuta edunt.

8. Ovularia Phyllactidis Speg., Myc. Argent. V, p. 418, in Anal. 8111 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis subdeterminatis, suborbicularibus, 5-15 mm. diam., centro fuscescentibus, ambitu rufescente; cæspitulis hypophyllis densiuscule gregariis candidis, pusillis; hyphis cæspitosis bacillaribus apice vix denticulatis, deorsum non v. vix incrassatis 20-30 × 4-5, continuis, hyalinis; conidiis ellipsoideo-subfusoideis utrinque sæpe subapiculatis, 10-12 × 2,5-3, leniter inæquilateralibus, continuis, hyalinis, levibus.

Hab. ad folia viva Phyllactidis salicariifoliæ in uligignosis, La Plata Argent. Amer. austr.

9. Ovularia conspicua Fautr. et Lamb. — Syll. X p. 1054. — Var. 8112 Cardui Kab. et Bub., Fünft. Betr. Pilzfl. Tir., in Ber. naturw.med. Ver. Innsbruck, XXX Jahrg. (1905-1906) extr. p. 18. — Maculis amphigenis, subrotundis, 1-8 mm. latis, initio indistincte viridulis, dein arescendo albis v. sordide albis, plerumque zona brunnea cinctis; cæspitulis hypophyllis, æqualiter distributis; conidiophoris dense fasciculatim ex stomatibus exeuntibus, rectis curvulisve, continuis, hyalinis, apicem versus tenuatis et 1-4-denticulatis, 30-60 × 3-5; conidiis ovoideis v. ellipsoideis, basi obtusatis, hyalinis, 12-15 × 4-7.

Hab. in foliis Cardui Personatæ, Zillertal (KABAT).

10. Ovularia occulta Sacc. in Ann. Mycol. X (1912) p. 313. — Ma-8113 culis versiformibus brunneolis, amphigenis et caulicolis; cæspitulis inter pilos matricis abditis, fugacibus; hyphis fasciculatis, simplicibus, continuis, 30-40 × 4, sursum leviter denticulatis; conidiis obovatis, 15-16 × 9-10, hyalinis, levibus, intus guttulato-granulosis.

Hab. in foliis caulibusque Solidaginis rigidæ, London Ontario Amer. bor. Aug. 1910 (J. Dearness). — Ovularia Virgaureæ (Thüm. sub Ramularia) Sacc. Syll. IV p. 142 (ad Ovulariæ genus relata ex diagnosi imperfecta Thümenii), est vera Ramularia sec. exempl. originalia, uti descripta est in Syll. IV p. 209; hine Ovularia Virgaureæ Sacc. delenda est.

11. Ovularia Inulæ Sacc. — Syll. IV p. 141. — Var. Lampsanæ 8114 Bäuml. in Verh. zool. bot. Ges. Wien XXXLIII (1888) p. 715. — Cæspitulis hypophyllis; conidiophoris, breviter ramosis, 35-40 × 3-6; ovoideo-oblongis, utrinque rotundatis, solitariis v. breviter catenulatis, 8-14 × 4-4,5, hyalinis.

Hab. in foliis Lampsanæ communis pr. Schemnitz Hun-

gariæ (KMET).

12. Ovularia Polliniæ P. Henn., Engl. Jahrb. XXXVIII (1905) p. 165. 8115 Maculis flavido-fuscis, rotundatis, confluentibus dein explanatis; cæspitulis hypophyllis subrotundis confluentibus, albido-einereis; hyphis fasciculatis, septatis, ramosis, ad apicem denticulatis, 4-6 μ. cr., hyalinis; conidiis ovoideis, intus granulatis, hyalinis, 8-13 × 6-7.

Hab. in foliis Polliniæ imberbis, Katakasa-mura, Tosa Japoniæ (T. Yoshinaga). — Conidiophoris sæpe copiose ramosis a typo generis deflectit.

- 13. Ovularia monosporia (West.) Sacc. Ita vocanda est Ovularia ob-8116 liqua (Cooke) Oud. Syll. IV p. 145 nam Oidium monosporium West. est ex anno 1863 et Peronospora obliqua Cooke est ex anno 1865.
- PSEUDOVULARIA Speg. Myc. Arg. V, p. 418, in Anal. Mus. Nac. Buenos Aires XX (1910) (Etym. pseudes falsum et Ovularia). Est Ovularia conidiis globosis pleurogenis et acrogenis donata.
- 1. Pseudovularia Trifolii Speg., l. c. p. 419 cum icon. Maculis 8117 suborbicularibus pallescentibus indeterminatis, 3-5 mm. diam., centro subcinerescentibus ambitu subrufescentibus; cæspitulis hypophyllis erumpentibus minutissimis albido-subcinereis, ex hyphis simplicibus septulatis hyalinis subdenticulatis, 500-700 × 5-7 efformatis; conidiis solitarie acrogenis subglobosis deorsum minute papillulatis, 7-10 μ. diam., levibus, punctulato-nubilosis.

Hab. ad folia viva Trifolii platensis in uliginosis Lezama Argentina Amer. austr.

## ASTEROPHORA Ditm. - Syll. IV p. 148.

1. Asterophora angulata (Catt.) Lind. Deutsch. Krypt. Fl. Pilze 8118 VIII p. 225, Sporotrichum angulatum Catt. in Arch. Labor. Critt. Pavia, II-III p. 124 (1879) t. XIV, fig. a-b. — Hyphis araneosis, effusis, septatis, ramosis; conidiis (chlamydosporis) acrogenis irregulariter lobulatis, opace nigricantibus, 30 μ. diam., conglomeratis, cæspitulos nigrificantibus.

Hab. in plantulis junioribus Oryzæ in Italia sup. — Vix hujus generis et ob conidia opace nigricantia et ob locum.

### PELLICULARIA Cooke - Syll. IV p. 149.

1. Pellicularia chilensis Speg., Fungi Chilenses (1910) p. 181. — 8119 Tenuissima, latissime effusa, albida, ex hyphis repentibus plus minusve ramosis 200-500 × 3-6, atque dense intertextis efformata; conidiis pleurogenis vage insertis, hyalinis, globosis, 4-8 μ. diam., papillulato-asperulis, tunica mucosa tenui obvolutis.

Hab. copiose in foliis languidis Rumicis crispi, Quinta Normal de Santiago, Chile Amer. austr.

#### MERIA Vuill. - Syll. XIV p. 431.

- Meria Laricis Vuill. (1896). Syll. XIV p. 431 Huc spectat, 8120 teste cl. Vuillemin, Hartigiella Laricis (Hart. 1899) Syd. (1900).
   Syll. XVI p. 1031. De recto loco in systemate dubia adhunc supersunt. Occurrit quoque et Larices vexat in Italiæ pluribus locis (Hadr. Figr.!)
- KABATIELLA Bubák, Myc. Beitr., Hedwigia Bd. XLVI (1907) pag. 297. (Etym. a cl J. E. Kabat, mycologo bohemico). Acervuli subepidermici, ex stomatibus exeuntes, pallide colorati; conidiophora conferta ramosa v. simplicia, parum septata, apice subclavata, ibique verruculosa, pseudosterigmata minuta ferentia; conidia elongata v. cylindracea, solitaria, unilocularia, hyalina.
- 1. Kabatiella microsticta Bubak, Myc. Beitr. Hedwigia Bd. XLVI 8121 (1907) p. 297. Maculis amphigenis, magnis, plerumque elongatis, irregularibus, late confluentibus, subalutaceis v. brunneolis, siccis plerumque late purpureo-brunneo-marginatis; acervulis subepidermicis, dein ex stomatibus exeuntibus, amphigenis, minutis, elongatis 40-150 μ. latis, flavido-albis v. rubescentibus; conidiophoris crebre fasciculatis flavidis, basi parum ramosis et sparse septatis, supra divergentibus, apice plus minusve clavatis, 22-35 μ. long., apice 4-9 μ. cr. et aculeolato-verrucosis; conidiis exelongato cylindraceis, utrinque rotundatis, rectis v. curvulis, solitariis, 5-12 × 2,5-4, raro usque ad 18 × 5, hyalinis, plerumque grosse biguttulatis et sparse minuteque multiguttulatis.

Hab. in foliis vivis Convallariæ majalis cultæ prope Turnau, Bohemia (KABAT).

VERTICILLIUM Nees. — Syll. IV p. 150, X p. 545, XI p. 599, XIV p. 1056, XVI p. 1087, XVIII p. 533.

1. Verticillium candidulum Sacc. — Syll. IV p. 150. — Var. Binotia- 8122 Syll. fung. XXII (VII-1913)

num Sacc., Bull. Soc. Bot. de Belg. XXXV (1896) p. 129, tab. IV, fig. 4 f-g. — Cæspitulis candidis, sparsis v. perithecia *Nectriæ* circumdantibus; hyphis typi, sed deorsum dilutissime fuscellis, 4  $\mu$ . or.; conidiis oblongis,  $5 \times 2.5$ , hyalinis.

Hab. in foliis Orchidearum epiphytarum emortuis in Brasilia, socia et verisimillime metagenetica Nectria Binotiana (P. Binot). — Var. Solani (Riv.) Sacc. Mich. II p. 637, Spicaria Solani Rivolta, Parass. p. 563 (1884) f. 304. — Conidiophoris 100-150 × 3,5-4,5; conidiis 6-6,5 × 3-3,5, hyalinis. — In tuberibus Solani putridis in Italia, Gallia et Hollandia.

2. Verticillium compactiusculum Sacc. — Syll. IV p. 151. — Var. 8123 phyllogenum Sacc., Bull. Soc. Bot. de Belg. XXXV (1896) p. 128, tab. III fig. 3 e-f. — Cæspitulis candidis, nunc sparsis, nunc in stromate peritheciisque Nectriæ orientibus, modo laxis, modo compactiusculis; hyphis typi, conidiis elliptico-oblongis v. subfusoideis, 2-guttatis, 7-8 × 2, rectis, hyalinis.

Hab. in foliis putrescentibus Monocotyledoneæ cujusdam (Orchideæ?) in Brasilia, socia et verisimillime metagenetica Nectria phyllogena.

3. Verticillium dendrodochioides D. Sacc., Malpighia XII (1898) 8124 p. 19 extr., tab. 8, fig. 17. — Cæspitulis gregariis, superficialibus, pulvinatis, 1 mm. diam., compactis, dein radiatim diffractis, albis; hyphis fertilibus ascendentibus fasciculatis, parce septatis, 5 μ. cr., a medio sursum ramosis, ramis primariis solitariis v. binis, secundariis seu extimis subternis apice acutiusculis, monosporis; conidiis ellipsoideis, sæpe curvulis, 6-7 ≥ 3, hyalinis.

Hab. in cortice putri ramorum Ulmi etc., Vittorio Ital. bor.
Tam habitu quam conidiophoris ad Dendrodochium nutat.

4. Verticillium discisedum Sacc. et Fairm. in Saccardo, Microm. Amer. 8125 novi, Journ. of Myc. v. XII (1906) p. 50. — Minutissimum, confluendo effusum pruinam albam maculiformem in Lachnece disco fingens; hyphis sterilibus repentibus, parcis, fertilibus seu conidiophoris brevibus, 50-80 × 4, plerumque medio 1-septatis, sursum trifidis, ramis tereti-fusoideis apice ramulos seu pseudobasidia verticillato-terna v. quaterna cuspidata, sæpe curvula, 15-20 × 3 μ. gerentibus; conidiis obovoideis, majusculis, continuis, hyalinis, eguttatis, 8,5-9 × 5,5-6, in pseudobasidiorum apice solitariis.

Hab. in disco Lachneæ hemisphæricæ, Lyndonville, N. Y Amer. bor. — Affine Verticillio epimyceti sed colore albo, conidiis majoribus differt.

5. Verticillium palmigenum Speg. Myc. Argent. V, p. 419, in Anal. 8126 Mus. Nac. Buenos Aires XX (1910). — Pulvinulis tenerrimis nubiloso-pruinulosis cinereis repando-effusis, 5·25 mm. diam.; hyphis 1-5-cæspitosis, erectis, simplicibus, 100-250 × 3-5, olivaceis, 4-7-septulatis, superne 3-4 verticillos pseudosterigmatum ornatis; conidiis subcylindraceis utrinque rotundatis, rectis, 4-5 × 1,5-2, hyalinis, levibus, initio catenulatis? dein mucose subcapitulato-conglobatis.

Hab. ad rhachide putrescentes Phænicis canariensis in horto La Plata Argentina Amer. austr. — An V. africanum (Dur. et Mont.) Sacc.?

6. Verticillium album Licop. Stor. Nat. Crittog. Vesuv. in Atti R. 8127 Accad. Sc. Napoli (1871) p. 19, t. III, f. 6 (sine diagnosi) — Hyphis mycelicis filiformibus in thallum lichenum penetrantibus; conidiophoris erectis pro more simpliciter dichotomis, sursum verticillato-ramulosis; ramulis ternis v. quaternis phialiformibus, sub inde iterum ternato-ramulosis; conidiis globosis, solitarie acrogenis.

Hab. in propagulis Stereocauli vesuviani, Vesuvio. Ital. austr. — Totum album.

7. Verticillium Rivoltæ Sacc. et Trav. — Syll. XX p. 1132 — Vert. 8128
album Riv. Parass. veget. (1873) p. 482, t. VII, f. 207, non Licop.
— Cæspitulis albidis; conidiophoris brevibus, nodulosis, septatis; conidiis ovoideis basi acutatis, striolatis.

Hab. in forno udo putrescente in Italia. - Species dubia.

8. Verticillium ærugineum Speg., Myc. Argent. V, p. 420, in Anal. 8129 Mus. Nac. Buenos Aires XX (1910). — Late effusum, primo laxiusculum candidum dein compactiusculum subcrustaceum glauco-olivascens, margine tantum albescens et fere substratum totum obtegens; hyphis densissime intertextis, septulatis, 5-8 μ. cr., hinc inde ternatim verticillato-ramulosis; pseudosterigmatibus elongato-ampulliformibus, 12-16 × 2-3, acrogenis, ternatis, subhyalinis; conidiis cylindraceis utrinque rotundatis, 6 × 2,5 eguttulatis, levibus hyalinis vix fumosis.

Hab. ad corpus Gromphas Lacordairei putrescens prope Jujuy Argent. Amer. austr.

9. Verticillium Eriophytis (Massee) Sacc. et Trott. — Botrytis Erio- 8130 phyes Massee, in Taylor. Journ. of Econom. Biol. v. IV (1909) p. 5, tab. 2, et fig. — Maculis parvis niveis; hyphis sterilibus repentibus septatis, 2-3  $\mu$ . cr. vage ramosis; fertilibus erectis, ra-

mis ramulisque subverticillatis; ramulis tenuibus subquaternis apice acutiusculis; conidiis prope apicem ramulorum insertis, cylindraceis, hyalinis, continuis, erectis,  $5.8 \times 1,5.2$ .

Hab. parasitica ad superficiem Acari Eriophytis Ribis, prope Reading Angliæ.

10. Verticillium tumorum Cke., Grevillea IV (1876) p. 114-64, fig. 14. 8131 — Elatum, erectum, hyphis fertilibus e basi furcatis, superne ter verticillato-ramosis, septatis; ramis ascendentibus, 3-5 in quoque verticillo, sursum tenuato-cuspidatis typice monosporis conidiis ellipsoideis, hyalinis, levibus.

Hab. in tumoribus . . . . in Britannia (Nullam discriptionem in Grevillea reperire potui).

- ARTICULARIA v. Höhn. Fragm. Myk. VI in Stzb. k. Akad. d. Wiss. Wien, CXVIII, Abt. I (1909) p. 407 (Etym. articulus). Hyphæ steriles hyalinæ cæspituloso-contextæ. Conidiophora simplicia, erecta v. flexa, ex articulis obconicis superpositis formata. Articuli 1-cellulares sed hyphis pluribus bacillaribus verticillatis, coalescentibus, divergentibus cincta, hinc superne truncati ibique margine ex apice hypharum denticulato-sporigero, acuto præditi. Conidia fusoideo-oblonga, hyalina, continua, in corpus doliiforme octona verticaliter coalescentia.
- 1. Articularia quercina (Peck) v. Höhn. l. c. p. 409, fig. 26, Asco-8132 mycetella quercina Peck Syll. VIII p. 846 (sub Cookella) st. conid. Hyphis sterilibus 1,5-2 μ. cr.; conidiophoris 0,5 mm. alt. et ultra, articulis 12-16 × 4; conidiis fusoideis, curvulis, utrinque rotundatis 20 × 3, hyalinis, octonis in corpus ellipticodoliiforme 16-20 × 10-11 coalescentibus.

Hab. in pag. inf. foliorum Quercus tinctoriæ, Illinois Amer. bor.

COEMANSIA v. Tiegh. — Syll. IV p. 162, X p. 547.

1. Coëmansia erecta Bainier, Bull. Soc. Myc. France XXII (1906) 8138 p. 220, tab. XIV, f. 9-12. — Conidiophoris filiformibus, 14  $\mu$ . cr., sursum in ramos binos, ternos prælongos usque ad 2-3 mm. divisis; ramis longe crebro spicato-ramulosis, ramulis sporigeris ascendentibus, 8-septatis, 33  $\mu$ . longis, pseudosterigmatibus 5,6  $\mu$ . longis; conidiis fusiformibus 11-11,2  $\approx$  2,8.

Hab. in substantiis... non indicatis in Gallia. — Affinis Coëm. reversæ. — Quoad species generis Coëmansiæ cfr. Bainier l. c.

HARZIELLA Cost. et Matr. — Syll. XVI p. 1037.

1. Harziella eñusa v. Höhn., Fragm. z. Mykol. III, in Sitzb. k. Ak. 8134 d. Wiss. Wien Bd. CXVI, Abt. I (1907) p. 149. — Cæspitulis 40-50 μ. altis, late effusis, marginem versus sensim tenuatis, albidis rubido-tinctis; hyphis sterilibus tenuibus, conidiophoris, 40-50 × 2-3, tenui-tunicatis, non v. parce septatis, plerumque 2-3 ramulis lateralibus oppositis v. verticillatis, acutis, 20-30 × 1,5-3; hypha primaria ramisque ad apices conidia solitaria sed copiosissima gerentibus; conidiis plerumque globosis, 1,5-3 μ. diam., hyalinis, coacervatis roseis, in capitula subglobosa demum irregularia 4-100 μ. diam. rubescentia conglutinatis.

Hab. in caulibus, lignis, corticibus, Muscis, que veluti pruina tenui subfarinacea obducuntur, pr. Pressbaum in Wienerwald Anstriæ (v. Höhnel).

2. Harziella Castaneæ Bainier, Bull. Soc. Myc. Fr. XXIV (1908) 8135 p. 90 tab. IX fig. 1-5. — Mycelio brunneo v. fuligineo, valde evoluto, filiformi, septato, ramoso; conidiophoris variæ longitudinis, plerumque brevibus, apice v. hinc inde glomerulos v. racemos densos pseudobasidiorum gignentibus; pseudobasidis phialiformibus apice in capitula minuta conidiorum abeuntibus; conidiis sphæricis, albo-hyalinis, 5 × 2,5 muco conglutinatis.

Hab. in interiore fructuum vitiatorum Castaneæ sativæ, ubi massas nigras format, in Gallia. — Vix Mucedinacea.

CLONOSTACHYS Corda — Syll. IV p. 165, X p. 574, XIV p. 1057, XVIII p. 537.

1. Clonostachys cylindrospora v. Höhnel, Fragm. z. Mykol., Sitzb. 8136 k. Ak. d. Wiss. Wien Bd. CXVI, Abt. I (1907) p. 147. — Cæspitulis candidis, flocculosis, 400-500 μ. alt.; hyphis densiusculis parallele ascedentibus, septatis, infra flavidis, sursum hyalinis, 200 × 4-6; conidiophoris inferius ramos 1-2 alternos, superne 2-4 subverticillatos gerentibus; pseudosterigmatibus acrogenis singulis v. ternis, 8-12 × 1,5, acutis; conidiis cylindraceis, sæpius rectis, utrinque rotundatis, continuis, hyalinis, 4-5 × 1,5-1,8 copiosissimis demum in spicas 200 × 6-12 imbricatim conglutinatis.

Hab. in cicatriculis foliorum ad ramos dejectos Abietis pectinatæ, Wienerberg pr. Pressbaum Austriæ. — Subinde conidiophororum ramuli secundi et tertii ordinis occurrunt.

2. Clonostachys Simmonsii Massee, Kew Bull. (1907) p. 242, fig. 9-10. 3137

— Hyphis sterilibus repentibus, simplicibus v. breve vage ramulosis, septatis, hyalinis; fertilibus erectis, simplicibus superne septatis, ad septa verticillato-ramosa, ramis ramulisque ternis v. quinis, ramulis attenuatis; conidiis ubique tectis spicam æmulantibus; conidiis ellipsoideis, hyalinis, spinulosis,  $6 \approx 4$ .

Hab. in excrementis larvarum insecti Europterygis sambucariæ in hortis Kew Angliæ (A. L. Simmons). — A Cl. Araucaria imprimis conidiis spinulosis distinguitur.

SPICARIA Harz — Syll. IV p. 166, XVI p. 1038, XVIII p. 537. 8138
1. Spicaria colorans De Jonge, Rec. Trav. Bot. Néerl. VI (1909) p. 12, tab. 2, fig. 6-8. — Mycelio hyalino, repente septato, anastomotico-ramoso; conidiophoris hyalinis, septatis, assurgentibus filiformibus sursum parce verticillato-ramosis, ramulis ternis v. binis, raro solitariis, ultimis tenuatis conidigeris; conidiis in catenulas longiusculas dispositis, ovoideis, levibus, hyalinis, 6-10,5 × 4-5.

Hab. in cortice vivo Theobromæ, rarius in ligno, Surinam.

— Fungillus mediis alcalinis colorem violaceo-rubrum impertitur et sæpe nascitur e germinatione conidiorum Fusari speciei.

2. Spicaria valdiviensis Speg., Fungi Chilenses (1910) p. 181. — 8189 Tenuissime effusa, candida; hyphis gracillimis, 25-50 × 1, simplicibus v. bifidis, hyalinis, flexuosis, quandoque continuis; conidiis acrogenis catenulatis, cylindraceis, apice subtruncatis, 5-7 × 1, hyalinis.

Hab. frequens in Heterosporio Tupæ in foliis vivis Lobeliæ Bridgesi prope Ciudad de Valdivia Chile Amer. austr.

3. Spicaria Aphodii Vuill. Bull. Soc. Sc. Nancy (1910) p. 24 et p. 22, 8140 fig. 1-12 (extr.) — Hyphis sterilibus ramosis, septatis, intricatis, hyalinis; fertilibus erectis subdecumbentibus; ramis verticillatis, rarius discretis, ultimis conidiferis, basi inflatis sursum tenuatis (phialis Vuill.); conidiis laxe catenatis, roseis, homogeneis v. 1-guttulatis, ovoideis levibus, breviter pedicellatis, 3,5-4 × 1,5-1,7.

Hab. in corpore Aphodiorum (e Coleopteris) quos necat et momificat nec non in terra humosa in Gallia.

## GONATORRHODIELLA Thaxt. — Syll. X p. 548.

1. Gonatorrhodiella Highlei A. L. Smith, Trans. Brit. Mycol. Soc. 8141 1907 v. III (1908) p. 36, tab. I, fig. 3. — Hyphis sterilibus repentibus, pallidis, fertilibus circ. 500 × 12, subflavis; vesiculis

pœne sphæricis v. elongatis, 20-30  $\mu$ . cr.; conidiis ellipsoideis v. sphæricis, flavis, levibus, singulis v. in catenulas breves simplices v. ramosas dispositis,  $12-15 \approx 10-12$ .

Hab. in bulbis Cæpæ, Londini Britanniæ.

2. Gonatorrhodiella eximia v. Höhnel, Fragm. z. Mykol, Sitzb. k. 8142 Ak. d. Wiss. Wien, Bd. CXVI, Abt. I (1907) p. 146. — Hyphis sterilibus parcis, subhyalinis, repentibus, tenui-tunicatis, septatis, 4-6 μ. cr.; conidiophoris pallide rubellis, parvis, cæspitulos densiores v. laxiores formantibus, erectis, indivisis v. rarius medio v. prope basim furcatis, semitunicatis 7-14, sæpius 9-11 μ. cr., septatis, articulis 80-200 μ. longis præditis, 500 μ. altis, vesicula una apicali et binis v. ternis intercalaribus elliptico-ovoideis 24-36 × 20-30 præditis; vesiculis ubique spinuloso-catenuligeris; conidiis 10 12 in quaque catenula, pallide rubescentibus, ellipsoideis, 7,5-10 × 5,5-6, tunica sat tenui.

Hab. parasitice in Tremella lutescente, Wienerwald Austria (v. Höhnel).

# GONATOBOTRYS Corda — Syll. IV pag. 169, XVIII pag. 539.

1. Gonatobotrys lateritia Peck, N. Y. St. Mus. Bull. (31) (1909) 8143 p. 21. — Effusa, lateritia, maculas efformans; hyphis erectis, 8-10  $\mu$ . cr., septatis, nodulis paucis globosis ovalibusve, nodulo terminali obscure dentigero, 30-40  $\mu$ . long.; sporulis ellipsoideis,  $8-12 \approx 6-8$ .

Hab. in speciebus variis Poriæ, Star Lake, St. Lawrence Co., Amer. bor.

ACROSTALAGMUS Corda — Syll. IV p. 163, XI p. 600, XIV p. 1056, XVI p. 1037, 1156, XVIII p. 536.

Acrostalagmus Vilmorinii Guéguen, Bull. Soc. Myc. Fr. XXII 8144 (1906) p. 264, tab. XVI. — Mycelio albido v. griseo 1-4 μ. cr., parce septato, guttulato, sclerotia rotundata inæqualia, 20-70 μ. diam., brunnea passim formante; hyphis fertilibus rectis, rigidulis, inæqualibus, vix septatis, parce ramosis; ramis subsolitariis v. binatis v. pauci-verticillatis, apice tenuatis sub capitulis globosis; conidiis cylindraceis utrinque rotundatis, 5-7 × 2,5-3, albidis, levibus, mucilagineis, biguttulatis.

Hab. in collo radicis cujusdam Asteris sp. quem necat, Les Barres in Gallia. — Ex icone species omnino spuria videtur. —

Fm. thomensis Guéguen, Bull. Soc. Mycol. Fr. (1910) p. 294, tab. X et XI. — A typo differt mycelio stromatiformi, sine sclerotiis; conidiophoris altioribus; conidiis non guttulatis. — In tegumentis nigrescentibus seminis Theobromæ Cacao, San Thomé Africæ occid. Conidia  $7 \times 3-4$ , in glomerulos 30-50  $\mu$ . diam. collecta.

2. Acrostalagmus roseus Bainier, Bull. Soc. Myc. Fr. XX (1905) 8145 p. 225, tab. XII. — Cæspitulis roseis, hemisphæricis; hyphis sterilibus septatis, repentibus, hinc inde fasciculatis; conidiophoris ascendentibus, 600-800 μ. altis, 20-40 μ. cr., parce septatis, sursum bis dichotome ramosis, ramis apice in ramulos plerumque verticillato-ternos v. quaternos, obclavatos, arrectos, conidigeros divisis; conidiis acrogenis, minutissimis, ex ovoideo sphæricis, 2-6 × 2-3, roseis, dein conglobatis.

Hab. in caryopsidibus Panici miliacei dejectis, udis, Paris Galliæ. — Interdum generatur forma altera ramis ramulisque omnibus relaxato-divaricalis. Cfr. fig. 6-7 l. c.

3. Acrostalagmus nigripes Bainier, Bull. Soc. Myc. France XXII 8146 (1906) p. 221. — Mycelio ramosissimo, nigro, articulato, articulis subglobosis; hyphis fertilibus erectis 500 μ. alt. 10-12-septetis, sursum verticillato-ramosis articulis inferioribus nigricantibus, superioribus hyalinis, ramis semel v. bis verticillatis, quinis-septenis, obclavatis, apice tenuatis, 30-33 μ. longis; conidiis ovoideis capitulato-glomeratis, acrogenis, hyalinis, 5,6 × 2,8.

Hab. in fono humido in Gallia.

4. Acrostalagmus galeoides A. L. Sm., Trans. Brit. Mycol Society 8147 (1906) p. 167. — Cæspitulis minutis, laxis, albis; hyphis sterilibus ramosis, septatis; conidiophoris erectis tenuibus, sursum pluries verticillato-ramosis, ramulis 5-8 in quoque verticillo, 10-20 × 2-3, sursum attenuatis, apiceque vero inflatulis et conidigeris; conidiis copiosis, capitulatis, facile deciduis, cylindraceis, 4-6 × 1, hyalinis.

 ${\it Hab}.$  in Filice quadam putrescente, Epping Forest Britanniæ (Hughes).

5. Acrostalagmus coccidicola Guéguen, Champ. parasites de l'homme, 8148 Paris pag. 252, tab. XII, fig. 13 (1904). — Mycelio floccoso anastomotico-ramoso albo dein vitellino, parce septato, 3 μ. diam.; hyphis fertilibus cæspitosis, erectis, 3 μ. diam., cylindraceis, sursum tenuatis, parce septatis, ramosis; ramis sparsis, lateralibus subsolitariis, alternis aut subternis, acutis; conidiis cylindraceis

utrinque rotundatis, hyalinis, levibus, mucilagineis, pallide lutescentibus,  $4-5 \approx 1$ , guttulam sphæricam mox dilabentem foventibus.

Hab. in corporibus Coccidum paginæ inferiori foliorum (Mikaniæ?) adfixis in calidariis, Paris Galliæ.

6. Acrostalagmus murinus Ces. in Kl. Herb. Mycol. II n. 74, Bot. 8149 Zeit. (1855) p. 599. — Cæspitibus griseis, diffusis; stipite nigro; conidiis albis.

Hab. in agro Vercellensi Ital. bor.

7. Acrostalagmus cylindrosporus Preuss, in Kl. Herb. Myc. n. 1380 8150 (1850) (nomen nudum).

Hab. in agro Hoyerswerda.

8. Acrostalagmus persistens Payer, Botan. Crypt. p. 74, fig. 337 (1850). 8151 — Syll. XIX p. 13. — Diagnosis et locus desunt. Verisimiliter species non diversa a vulgatissimo Acrostalagmo cinnabarino.

#### NEMATOGONIUM Desm. — Syll. IV p. 170, XVIII p. 539.

Nematogonium album Bainier, Bull. Soc. Mycol. Fr. (1905) p. 227, 8152
 XIII. — Cæspitulis minutis, omnino albis; hyphis mycelii lignum penetrantibus, fructiferis erectis, laxe septatis, 400-600 × 8-9, rarius breviter ramosis, vesiculas conidigeras acropleurogenas laxe spinulosas 20-26 × 10 generantibus; conidiis e sphærico ovoideis, mox secedentibus, levibus hyalinis, 20 × 9-10.

Hab in caudicibus Populi sp. Paris Galliæ.

## Sect. 2. Hyalodidymæ.

CEPHALOTHECIUM Corda — Syll. IV pag. 180, X pag. 549, XIV pag. 1057.

Cephalothecium tetraspermum Richon, Cat. Champ. Marne p. 428, 8153 fig. ad p. 505 (1889). — Cæspitulis maculiformibus, albis; conidiophoris erectis, indivisis 1-2-septatis, apice conidia terna-quaterna, evoidea 1-septata, hyalina gerentibus.

Hab. in acervis putridis Hordei, St. Lumier-en-Champagne Galliæ.

2. Cephalothecium microsporum Eichelb., Verh. Naturw. Ver. Ham- 8154 burg, 3, Folge XIV (1906) p. 39. — Hyphis sterilibus dilute viridulis, parce septatis, 3,5-4 μ. cr., substrato adpressis et penetrantibus; conidiophoris erectis, 64-270 μ. alt., basi 8-9 μ., sursum 4,8 μ. cr., septatis, articulis 16 μ. long. præditis, coacer-

vatis nigricantibus, discretis viridulis, apice inflatis et minute verruculosis; conidiis albidis, hyalinis, capitulum laxum formantibus, oblongis, 8 × 4, medio 1-septatis.

Hab. in corticibus putridis ad pedem M. Bomole, Amani, Africæ orientalis. — Inter Mucedineas et Dematieas ambigua species ex ipso auctore.

TRICHOTHECIUM Link — Syll. IV p. 178, X p. 549, XIV p. 551, XVIII p. 539.

1. Trichothecium javanicum Koord. Untersuch. Java (1906) p. 226, 8155 f. 36. — Hyphis sterilibus repentibus effusis, hyalinis; hyphis fertilibus simplicibus, fasciculatis, erectis, 270-360 × 4-5, hyalinis; conidiis apicalibus, solitariis, hyalinis, medio uniseptatis, ovoideis, utrinque rotundatis, 14-20 × 9-20, plerumque 18-20 × 9-10, ad septum haud constrictis.

Hab. in foliis emortuis Ficus Vogelii cultæ prope Loano in prov. Kedu ins. Java (Koorders).

- LINDAUOPSIS A. Zahlbruckn. in Berichte Deutsch. Bot. Gesell. (1906) p. 141, t. X (Etym. a cl. botanico G. Lindau, berolinensi) Fungus in hymenio lichenum innatus et parasitans. Hyphæ dichotome divisæ, flaccidæ, inæquales (non cylindricæ) decolores, lateraliter gemmiferæ, apice furcatæ. Conidia bina terminalia, hyalina, irregulariter ovoidea v. piriformia, 1-septata, membrana tenui, levi. A Didymaria et Didymopsi videtur (ex icone) maxime recedere ob hyphas et conidia omnino immersa in hymenio Lichenis.
- 1. Lindauopsis Caloplacæ A. Zahlbruckn. l. c. t. X. Hyphis cre-8156 bre dichotome ramosis, fere totum hymenium occupantibus, tenuibus, 1,8-3,5 μ. cr., septatis, in articulos 8-30 μ. longos partitis, gemmis globosis v. subglobosis, solitariis v. aggregatis obsitis; conidiis obovato-piriformibus v. soleiformibus, ad septum plerumque constrictis, 14-23 × 9-11.

Hab. in hymenio Caloplacæ Callopismatis parasitans et apothecia deformans, in insula Creta (STURANY).

DIDYMARIA Corda — Syll. IV p. 184, X p. 550, XI p. 601, XIV p. 1058, XVI p. 1039, XVIII p. 541.

1. Didymaria perforans (Ell. et. Ev.) Dandeno, Michigan Acad. of 8157 Sc. VIII (1906) p. 45. — Marsonia perforans E. et Ev. apud Selby in Ohio Agric. Exp. Stat. Bull. n. 73 (1896) p. 224 et Bull. n. 111 (1899) fig. 12. — Maculis minutis, versiformibus, 1-2 mm. diam., pallidis, mox circumscisso-deciduis; cæspitulis 100-120 µ. diam. v. confluendo amplioribus; conidiis copiosis, clavatis v. cuneatis, medio v. infra medium tenuiter 1-septatis, non constrictis, 11-15 × 2,5-3, rarius usque ad 20 µ. longis.

Hab. in foliis Lactucæ sativæ cultæ in tepidario, Troy Ohio Amer. bor. (A. D. Selby).

2. Didymaria Epilobii Hollós, Ann. Mus. Nat. Hungar. VII (1909) 8158 p. 57. — Maculis amphigenis, suborbicularibus, ochraceis, 2-3 mm. diam., demum confluentibus, sæpe totum folium occupantibus; cæspitulis hypophyllis, cinereis; hyphis erectis, subfasciculatis, simplicibus, continuis, rectis v. curvulis, flavidulis, 20-26 × 3.5-4; conidiis solitariis, acrogenis, piriformibus, inæqualibus, 1-septatis, valde constrictis, nubiloso-farctis, dilute cinereo-griseis, 30-36 × 10-16.

Hab. in foliis vivis v. languidis Epilobii hirsuti prope Nagy-Körös Hungariæ.

3. Didymaria graminella v. Höhn. Ann. Mycol. III (1905) p. 408 c. ic. 8159 — Maculis brunneis, lineatis, 1-15 mm. long.; cæspitulis amphigenis albis, dein sordidis, densis, depressis; hyphis conidiophoris erumpentibus, confertis, hyalinis, tenuibus, apice monosporis, plerumque conoideis, subinde quoque paullo elongatis, 30-75 × 4-6, basi cellula brevi suffultis, ceterum continuis, longioribus vero 2-3-cellularibus; conidiis obclavatis hyalinis, tenuiter tunicatis, bicellularibus, cellula inferiori crassiore obtusa, super. angustiore acutata, 16-20 × 4-6, raro 23-28 × 5-7.

Hab. in foliis Brachypodii silvatici pr. Altenmarkt in Præalpibus Austriæ.

4. Didymaria lutetiana Sacc. Ann. Mycol. VII (1909) pag. 435. — 8160 Effusa, griseola; maculis amphigenis, elongatis, arescendo albicantibus; conidiophoris obclavato-ampulliformibus, apice acutatis, 14-15 μ. altis, deorsum 5 μ. cr.; conidiis fusoideo-clavatis, deorsum acutatis, medio 1-septatis, non constrictis, hyalinis, 15 × 4.

Hab. in foliis nondum emortuis Brachypodii pinnati circa Parisios, Sept. 1908 (P. HARIOT). — Probabiliter varietas præcedentis.

RAMULARIOPSIS Speg., Myc. Argent. V, p. 421 in Anal. Mus. Nac. Buenos Aires XX (1910) (Etym. Ramularia et opsis facies). —

Hyphæ hyalinæ nodoso-articulatæ, dichotomice v. alterne ramosæ; articuli facile, soluti apice infero, attenuato-truncati, supero breviter capitato-bilobi, in conidia sensim transeuntes; conidia cylindracea 1-septata, non catenulata, concoloria

1. Ramulariopsis Cnidoscoli Speg., l. c., p. 422, cum icon. — Macu- 8161 lis pallescentibus diffusis, obsoletis; acervulis hypophyllis nervisequiis v. circinantibus, erumpentibus, subhemisphæricis, 100-150 μ. diam., gossypinulis, albis, per ætatem subflavescentibus; conidiis quandoque leniter fusoideis quandoque vix subclavulatis, utrinque plus minusve acutiuscule rotundatis 20-50 ≈ 5-7, primo continuis dein 1- rarius 2-septatis, ad septa non v. obsoletissime constrictis, rectis v. parum inæquilateralibus, hyalinis, levibus, in lobulis apicalibus articulorum superiorum hypharum alterne exsurgentibus.

Hab. ad folia Cnidoscoli Cnicodendri et Cnidoscoli sp. alterius, in silvis prope Oràn et Ledesma Argentina America austr.

**MYCOGONE** Link — Syll. IV p. 183, X p. 550, XI p. 600, XIV p. 1058, XVI p. 1040, XVIII p. 542.

Mycogone Ulmariæ Potebnia, Myc. St., Ann. Myc. v. V (1907) 8162
 p. 21, tab. II, fig. 26 et Trav. Soc. Nat. Univ. Kharkov
 XXXXIII (1907). — Maculis brunneis; hyphis repentibus, hyalinis,
 2-2,5 μ. cr.; sporulis piriformibus 31-35 × 22-26 in apice hypharum breviter ramulosis tenuibus insidentibus; loculo superiore conidiorum sphæroideo, 22-26 μ. cr., flavo-brunneo, episporio crebre verruculoso prædito, inferiori hyalino conoideo, basi 10-12 μ. lato,
 7-8 μ. alto.

Hab. in caulibus putrescentibus Spirææ Ulmariæ prope Kursk Rossia.

2. Mycogone flava (Wallr.) Rivolta, Parass. veg. 2 ed. p. 481 (1884) 8168 fig. 187, Mycobanche flava Wallr. Fl. crypt. germ. II 273 (1833). — Hyphis ramosis, ramulos laterales conidiferos mittentibus; conidiis bicellularibus, cellula sup. globosa, spinulosa, inferiori subhemisphærica, levi, intus granulosa et crasse 1-guttata, primo viridiflava, matura saturate griseo-flava.

Hab. in feeno et spicis secalinis in Italia (Rivolta) in ligno Tiliæ in Thuringia (Wallrott). — Species omnino ambigua.

3. Mycogone Sporotrichi (Cda.) Sacc. et Trav. — Syll. XX p. 159. 8164
 — Puccinia Sporotrichi Corda, Icones fung. I, p. 6, tab. II, fig. 100

(1837). — Conidiis solitariis, sparsis, primum innatis, dein liberis, luteis, diaphanis, didymis, cellula supera magna, ovata, infera minore, apiculo minuto instructa.

Hab. in Sporotrichis leucospermis variis in Bohemia. — Stirps dubia, sed certe non Puccinia.

CHLAMYDOMYCES Bainier, Bull. Soc. Myc. Fr. XXIII (1907) p. 240 (Etym. chlamys probabiliter pro chlamydospora et myces). — Fungus saprophyticus. Hyphæ repentes, septatæ, hinc inde ramos ramulosque patentes apice conidiophoros gerentes. Conidia bicellularia, cellula superiore sphærica v. ovoidea, basi truncata, intense colorata; cellula inferiore obconica, levi, diaphana. — Peraffinis generi Mycogone, sed, teste auctore, distinguitur quia non parasitica et quia differt dispositione hypharum. An satis?

Chlamydomyces diffusus Bainier, l. c., p. 240, tab. XXVI, fig. 4-6. 8165
 Effusus, crassiusculus; conidiorum cellula superiore 22-42 × 22-28, cinnamomea, episporio crassiusculo echinulato, cellula inferiore 14 × 5-6, episporio tenui, levi.

Hab. in fimo vaccino in Gallia.

**DIPLOCLADIUM** Bon. — Syll. IV p. 176, XIV p. 1057, XVI p. 1038, XVIII p. 542.

1. Diplocladium Theobromæ (Lutz) Sacc. et Trott., Fusarium Theo-8166 bromæ Lutz, Bull. Soc. Bot. Fr. LIII (1906) 1907, p. L, cum ic., non App. et Str. — Mycelio effuso, primo albo, dein ochraceo; hyphis ramosis laxe intricatis 2-3 μ. cr., articulis longis; fertilibus ascendentibus sursum bis verticillato-ramosis, ramulis obclavato-phialiformibus; conidiis oblongis utrinque rotundatis, rectis vel curvulis, inæqualibus, 10-15 × 2-4, albis, diaphanis, continuis rarissime 1-septatis, subinde binis catenulatis.

Hab. in seminibus Theobromæ Cacao fermentescentibus, Roça de Boa-Entrada, S. Thomé. — Species non bene definita.

## Sect. 3. Hyalophragmiæ.

FUSOMA Corda — Syll. IV p. 220, X p. 566, XI p. 607, XIV p. 1065, XVI p. 1048, XVIII p. 543.

1. Fusoma Cydoniæ Schulz. v. Mügg., Verh. k. k. zool. bot. Ges. 8167 Wien (1871) p. 1234, t. 13, f. 11. — Hypostromate flavido minute celluloso, pulvinulato; conidiis in eo superficialibus, confertis, cylindraceis utrinque valide curvatis et obtusulis, initio 4-guttatis dein 3-septatis, non constrictis, hyalinis,  $26 \times 3$ .

Hab. in ramis Cydoniæ vulgaris, socia Diplodia Phlæospora Sacc. et Trav., in Hungaria.

2. Fusoma blasticola (Rostr.) Sacc. et Trav. — Syll. XX, p. 1241 — 8168

Fusarium blasticala Rostr. in Gartner. Tidend. (1895) pag. 122,

Fusoma parasiticum Tub., Pflanzenkr. p. 521, Fusoma Pini Hart.,

Lehrb. Pflanzenkr. pag. 116, cum ic. — Mycelio endogeno, dein

erumpente, pallide griseo byssino, ramoso, septato, hyalino; conidiophoris brevissimis lateralibus; conidiis acrogenis falcatis, utrinque obtuse rotundatis, continuis, dein sub-5-septatis, hyalinis.

Hab. in plantulis imprimis Coniferarum, quibus valde noxium, in Bavaria, Baden, Dania.

3. Fusoma calidariorum Sacc., Not. Myc. VII, Ann. Myc. IV (1906) 8169 p. 274. — Cæspitulis superficialibus, gregariis, minutis, irregulariter hemisphæricis, 150 μ. diam., dilute roseis, fragilibus, denique mycelium filiforme candidum radians circumcirca emittentibus; conidiis cylindraceo-fusoideis, utrinque rotundatis, leviter curvis, 17-20 × 4-4,5, prorsus continuis, intus granulosis, v. 2-3-guttulatis, ex hyalino dilutissime roseis; basidiis ex hypostromate minuto, celluloso, ochraceo oriundis, bacillaribus, apice truncatis, 20-24 × 2,8-3, medio tenuiter 1-septatis, subochraceis.

Hab. in pedunculis Anthurii Scherzeriani putrescentibus in calidariis Horti botanici patavini. — Conidia et basidia aliquid Glæosporii habent, sed cæspituli sunt omnino superficiales.

#### MILOWIA Massee — Syll. IV p. 222.

1. Milowia amethystina Massee, Kew Bull. (1907) p. 242, f. 3-4. — 8170 Cæspitulis (sporodochiis?) pulvinatis, laxe gregariis, sessilibus, madore læte amethystinis, 0,5-1 mm. diam., conidiis cylindraceoellipsoideis, utrinque obtusatis, 7-septatis, hyalinis, 40-50 × 7-8, conidiophoris hyalinis suffultis.

Hab. in ligno decorticato udo, in hortis Kew Angliæ (G. NICHOLSON).

### MASTIGOSPORIUM Riess — Syll. IV p. 220.

1. Mastigosporium album Riess — Syll. IV, p. 220 — var. muticum 8171 Sacc., Ann. Mycol. (1911) p. 254. — Distinguitur conidiis ciliis

carentibus, paullo minoribus, nempe  $30-32 \times 11$ , conidiophoris crassiusculis, oblongis,  $8 \times 5$ .

Hab. in foliis languidis Dactylidis glomeratæ in Gallia (P. Hariot). — Cæspituli hypophylli, in maculis lanceolatis rubiginoso-fuscis gregariis, 200 μ. diam., sed sæpe confluentes, omnino superficiales. An cilia, typo adscripta, e facili germinatione potius oriuntur?

- **SEPTOCYLINDRIUM** Bon. Syll. IV p. 223, X p. 567, XI p. 607, XIV p. 1065, XVI p. 1048, XVIII p. 544.
- 1. Septocylindrium bellocense C. Mass. et Sacc., ap. Sacc. in Ann. Myc. 8172 VI (1908) p. 558. Cæspitulis epiphyllis, suborbicularibus, sordide albis, macula propria carentibus, 2-3 mm. lat., laxiusculis; conidiophoris dense fasciculatis, sporomorphis, crebro septatis, flavidulis, 25-35 × 5-6; conidiis catenulatis, utrinque truncatis v. rotundatis, 1-pluriseptatis, longitudine variabilissima, 20-140 × 5-7, rectis v. flexuosis, hyalinis, intus granulosis, septis modo approximatis, modo remotis.

Hab. in folils languidis Verbasci nigri in M. Belloca, Verona, Ital. bor. (C. Massalongo). — A Ram. variabili et R. cylindroide certe distinguendum.

2. Septocylindrium Cynaræ Speg., Myc. Arg. V, pag. 429, in An. 8178 Mus. Nac. Buenos Aires XX (1910). — Maculis epiphyllis, sparsis v. laxe gregariis, orbicularibus, 2-6 mm. diam., determinatis subcinerescentibus, dense minuteque albido-pruinuloso-papillosis; pulvinulis erumpenti-superficialibus, penicillato-subhemisphæricis, 50 μ. diam.; hyphis continuis fasciculatis, rectis, 20-25 × 3-4, simplicibus, apice catenulam conidiorum gerentibus, hyalinis; conidiis cylindraceis, utrinque obtusis, 15-30 × 13, rectis v. vix inæquilateralibus, 1-2-locularibus, 2-5-catenulatis, hyalinis, mox dissilientibus.

Hab. ad folia languida v. emortua Cynaræ Scolymi in hortis La Plata Argentina Amer. austr. — A Ramularia Cynaræ Sacc. longissime recedens.

3. Septocylindrium suspectum Massee, Kew Bull. (1910) p. 4. — Cæ-8174 spitulis amphigenis, densissime sparsis, albidis, ætate griseis, applanatis; hyphis repentibus laxe ramoso-intricatis, hinc inde ramulos simplices, erectos emittentibus; conidiis cylindraceis, 3-5-septatis, breviter catenulatis, hyalinis v. dilutissime roseo-tinctis, 35-45 × 5-6.

Hab. in corpore emortuo insectorum (Trog-hoppers) ad folia, ramos hærentium, Trinidad Amer. occid. — Fungus est forte insectorum occisor.

MONACROSPORIUM Oud. - Syll. IV p. 193, X p. 552, XVIII p. 544.

Monacrosporium leporinum Bubák, Ann. Mycol. IV (1906) p. 120. 8175
 Tenue; conidiophoris erectis 180-300 × 4,5, sursum sensim tenuatis, hyalinis, 4-5-septatis, septis sensim distantioribus; conidiis ellipsoideo-fusiformibus vel fusoideis, 5-cellularibus, cellula media conspicue majori, apice acute rotundatis, deorsum in pedicellum sensim angustatis, hyalinis, facile deciduis, 42-53 × 13-18,5.

Hab. in fimo leporino pr. Tabor Bohemiæ (BUBAK).

RAMULARIA Ung. — Syll. IV p. 196, X p. 553, XI p. 601, XIV p. 1059, XVI p. 1041, XVIII p. 546.

Ramularia Pæoniœ Vogl., Ann. R. Acc. Agric. Torino XLVIII 8176 (1905) pag. 449; Atti R. Acc. Sc. Torino v. XLIII (1907-1908) p. 97 (251). — Maculis supra fuligineis, subtus brunneo-griseis, pruinosis, irregularibus, 4-6-8 mm. latis; conidiophoris hypophyllis, erectis, fasciculatis, subsimplicibus, continuis, hyalinis, valde denticulatis, 40 × 4; conidiis cylindraceis, hyalinis, continuis v. 1-septatis, plerumque basi apiculatis, catenulatis, 12-14(raro 16) × 3-4.

Hab. in foliis Pæoniæ peregrinæ, socio Cronartio flaccido in hortis Pedemontii Italiæ bor.

2. Ramularia serbica Ranojevic, Ann. Mycol. VIII (1910) p. 395. — 8177 Maculis arescentibus, irregularibus, nervis brunnescentibus limitatis; cæspitulis hypophyllis, ex albo rubidis; conidis elongatis, cylindraceis, 1-2-locularibus, rectis, 13-34 × 5,5-7,5, hyalinis; conidiophoris cæspitosis, ex stomatibus exeuntibus, rectis, simplicibus, continuis, apice obtusis, non denticulatis, 32-51 × 5-7, hyalinis.

Hab. in foliis vivis Ranunculi montani, prope Mt. Midzur, Serbia. — A Ram. acri basidiis constanter non denticulatis distincta.

3. Ramularia æquivoca (Ces.) Sacc. — Syll. IV, p. 201 — var. bul- 8178 bosa Maubl., Bull. Soc. Myc. de Fr. XXII (1906) pag. 70. — A typo differt conidiis longioribus, 25-30 × 3-4; conidiophoris brevibus, simplicibus, apice dentatis.

Hab. in foliis Ranunculi repentis, Pornic Galliæ.

4. Ramularia Pulsatillæ Hollós, Botanikai Közlemények (1910) n. 2, 8179
 p. 112. — Maculis ochraceis, indefinitis, plerumque apicem folio-

rum occupantibus; cæspitulis amphigenis, minutis, albidis; conidiophoris fasciculatis, continuis, sursum denticulatis, hyalinis,  $24-30 \times 4-6$ ; conidiis cylindraceis, utrinque attenuatis et rotundatis, rectis, v. curvulis, medio uniseptatis, non constrictis, hyalinis,  $20-34 \times 3,5-4$ .

Hab. in foliis subvivis Pulsatillæ nigricantis prope Kecskemét Hungariæ.

5. Ramularia Fumariæ Speg., Myc. Argent. V, p. 420, in Anal. Mus. 8180 Nac. Buenos Aires XX (1910). — Maculis amphigenis orbicularibus, 2-5 mm. diam., centro subalbicantibus ambitu cinerescentibus, areola angusta violascente sæpius cinctis; acervulis hypophyllis v. amphigenis, densiusculis, ex hyphis tenuibus erectis v. repentibus, 30-50 × 2, furcatis, polyblastis efformatis; conidiis cylindraceis, superne obtusiusculis inferne subattenuatis, gracilibus, 15 30 × 3, 3-4-blastis hyalinis.

Hab. ad folia languida Fumariæ capreolatæ vulgata in herbosis Ensenada prope La Plata Argentina Amer. austr.

6. Ramularia Heimerliana P. Magn., Ber. deutsch. bot. Ges. XXVII 8181 (1909) p. 214, fig. 1-5. — Maculis nullis determinatis; cæspitulis hypophyllis, gregariis, totam folii paginam occupantibus, ex stomatibus tantum exsilientibus, albis; conidiophoris fasciculatis ex nodulo stromatico oriundis, continuis, rectis curvulisve; conidiis elongato-bacillaribus, diu continuis, dein 1-septatis, 22-32 ≈ 2,7-5, hyalinis.

Hab. in foliis Polygalæ vulgaris prope Vahrn Tirolia cisalp. (A. Heimerl). — Conidia in articulos binos demum secedere videntur.

7. Ramularia Bifloræ P. Magn., Pilzfl. Tirol, p. 545 (1905) [nomen] 8182 Lindau Deutsch. Krypt. Fl. Pilze VIII, p. 470. — Maculis suborbicularibus 1-3 mm. diam., raro amplioribus, sæpe valde numerosis, primo viridulo-brunneis, dein albis, modo anguste atro-brunneo-marginatis, modo irregulariter brunneolo-zonatis; cæspitulis minutissimis, sparsis, albis, hypophyllis; conidiophoris e stomatibus fasciculatim erumpentibus, simplicibus, continuis, rectis vel sæpe divaricatis, apice rotundatis v. sub apice obsolete denticulatis, hyalinis, 20-25- raro 40 × 4; conidiis tereti-fusoideis utrinque acutatis v. obtusulis, continuis v. bicellularibus, 23-30 × 3,5-4.

Hab. in foliis adhuc vivis Violæ bifloræ in Tirolia (Magnus, Bornmüller) et pr. Gastein Salzburg (Magnus).

8. Ramularia Viscariæ Kab. et Bub. Hedw. L (1909) p. 46. — Ma- 8183 Syll. Fung. XXII (VII-1913) 83

culis amphigenis, variis, subrotundatis, dilute dein atro-ochraceis, interdum concentrice zonatis, plus minus brunneolo-limbatis, subinde confluentibus et folium varie torquentibus et dein necantibus; cæspitulis plerumque hypophyllis per stomata crebro erumpentibus, niveis, demum sordide flavidis; conidiophoris fasciculatis, flexis, raro rectis, cylindricis, sursum tenuatis, continuis v. 1-3-septatis,  $150 \approx 4-6$ ; conidiis cylindraceis utrinque rotundatis 20-35, sæpius  $55 \approx 5-8$ , rectis curvulisve, initio continuis, mox 1-3-septatis, non constrictis, hyalinis.

Hab. in foliis vivis v. morientibus Viscariæ vulgaris pr. Gross-Skal Bohemiæ.

9. Ramularia Dianthi Lindau, in Rabenh. Kryptog.-Fl. Ed. II Hy-8184 phom. p. 447 (1906). — Maculis demum totum folium occupantibus, amphigenis, brunneis margine lato nigricante, subirregulariter cinctis; cæspitulis amphigenis, albis, punctiformibus; conidiophoris ex stomatibus fasciculatim erumpentibus, hyalinis, usque ad 58 × 3; conidiis cylindraceis utrinque acutatis, rectis, 1-2-cellularibus, hyalinis, 20-30 × 3,5.

Hab. in foliis Dianthi carthusianorum pr. Lenzen, Brandenburg (JAAP).

10. Ramularia Daniloi Bubák, Bull. Herb. Boiss. 2 sér., VI (1906) 8185 p. 486. — Maculis amphigenis, angulosis, internerviis, 2-4 mm. diam., alutaceis, arescendo albidis, sparsis; cæspitulis hypophyllis, confertis, albis, senio rubescentibus; conidiophoris confertim fasciculatis e stomatibus erumpentibus, rectis, sursum tantum curvulis, denticulisque 2-4 approximatis præditis, hyalinis, 40-50 × 4-5; conidiis primo ellipsoideis, catenulatis, continuis, dein oblongo-cylindraceis, apice plerumque obtuse acutatis, bicellularibus, hyalinis, 14-35 × 4,5-5,5.

Hab. ad folia viva Lavateræ thuringiacæ, Montenegro (Rohlena).

11. Ramularia necator Massee, Kew Bull. (1907) pp. 243 et 298 et 8186 in Bancrof Handb. Diseas. West. Ind. Plants (1910) p. 54, t. 5, f. 7. — Cæspitulis superficialibus, late effusis, filamentosis, albis; hyphis sterilibus dense intertextis, repentibus, septatis, hyalinis, 7-10 μ. cr., hinc inde inflatis; conidiophoris erectis sparse ramulosis, apicibus tenuatis; conidiis ellipsoideo-oblongis, utrinque rotundatis, 3-septatis, ad septa leniter constrictis, 25-28 × 7-9.

Hab. in cotyledonibus plantularum Theobromæ Cacao ex

ins. Dominica et Jamaica provenientibus, in hortis Kewensibus Britanniæ. — Plantulis mortifera.

12. Ramularia Lupini Davis, Trans. Wisc. Ac. Arts. a. Sc. XV (1907) 8187 p. 777. — Maculis pallidis, subrotundis, brunneo-marginatis, 4-7 mm. diam.; conidiophoris amphigenis, cæspitulosis, rectis v. leviter flexuosis, hyalinis, 20-40 ≈ 3,5-5; conidiis hyalinis, cylindraceis, obtusis, demum 1-3-septatis, 25-55 ≈ 4-6.

Hab. in foliis Lupini sp. Pacific Northwest Amer. bor. (Davis).

13. Ramularia (Cylindrospora) Phaseoli Klotzsch, Herb. viv. mycol. 8188 II (1832) n. 327 (nomen nudum).

Hab. in foliis Phaseoli sp. in Germania.

14. Ramularia Lathyri Hollós, Botanikai Közlemények (1910) n. 2, 8189 p. 112. — Maculis oblongis, alutaceis, ochraceo-marginatis; cæspitulis amphigenis, albidis; conidiophoris fasciculatis, continuis, sursum 3 – denticulatis, hyalinis,  $40-50 \approx 3$ ; conidiis cylindraceis, utrinque obtusulis, rectis, continuis aut 1-septatis, hyalinis, 16-20  $\approx 4-5$ , catenulatis.

Hab in foliis vivis Lathyri hirsuti prope Kecskemét Hungariæ.

15. Ramularia Galegæ Sacc. — Syll. IV p. 202. — Fm. Lathyri 8190 Ferr., Malpighia XX (1906) p. 153. — Maculis immarginatis; conidiis continuis v. septatis, 16-26 × 3-3,5.

Hab. in foliis Lathyri hirsuti pr. Alba, Piemonte (Fer-RARIS).

16. Ramularia loticola Massalongo, Nuove reclute fl. mic. veronese 8191 p. 11, in Malpighia v. XX (1906). — Cæspitulis haud maculigenis, punctiformibus, farinaceis, vulgo in tota pagina inf. foliolorum regulariter disseminatis; conidiophoris dense fasciculatis ex stomatum ostiolo egredientibus, interdum ramosis, sursum attenuatis, apice vix denticuligeris, 35-45 × 3-3,5; conidiis subcatenulatis, minoribus, ovoideis, majoribus cylindraceis, demum uniseptatis, utrınque subrotundatis, 3-5,5 μ. crassis et usque ad 20-25 μ. longis.

Hab. ad folia Loti corniculati prope Tregnago ex loco «Calavena», Verona, Ital. bor. — Ob cæspitulos in maculis decoloratis haud insidentes, atque fere totam paginam inf. foliolorum occupantes, imprimis tamen ob conidia utrinque subrotundata ab affini Ram. Schulzeri Baüml. differre videretur.

17. Ramularia Trifolii Jaap, Fungi sel. exsicc. n. 374, ex p.; Abh. 8192

Bot. Ver. Prov. Brandb. LII (1910), Extr. p. 9. - Maculis brunneolis, oblongis, internerviis; cæspitulis albis amphigenis; conidiophoris dense fasciculatis e pallido atro-olivaceis sursum hyalinis. e recto leviter flexuosis, septatis, usque ad 100 × 3; conidiis versiformibus, ovoideis, ellipsoideis, cylindraceis v. subclavatis, 1-2cellularibus, usque ad 18 \ 3,5.

Hab. in foliis vivis Trifolii medii in provincia Rhenana Germaniæ. - Socia Sphærella carinthiaca cuius est status conidicus.

- 18. Ramularia Craccæ Lindau, in Rabenh. Kryptog. Fl. Ed. II 8193 Hyphom. (1906) p. 510. — Ita vocanda est Ramularia montana Voss (1892) — Syll. XI p. 603 — extante anteriore homonyma R. montana Speg. - Nascitur quoque in eadem matrice in Brandenburg (JAAP).
- 19. Ramularia australis Sacc. in Campbell, Un nuovo fungo paras- 8194 sita dal Carrubo, Sora (1911) p. 2. — Maculis amphigenis fusconigricantibus, oblongis, plerumque secus nervos secundarios dispositis, 5-15 mm. longis, 2-3 mm. latis, sæpe confluentibus. margine abrupto concolori; cæspitulis hypophyllis, rarissime et epiphyllis, candidis, gregariis, 100 µ. diam. dein confluentibus, flocculosis; conidiophoris, e basi sporigena pulvinulata fulvescente nascentibus, dense fasciculatis, bacillaribus, subrectis, continuis, non denticulatis, hyalinis, 15-20 µ. longis, 2,5-2,7 µ. crassis, apice angustato truncatis; conidiis acrogenis, catenulatis, hyalinis, anguste fusoideis, subrectis, continuis 10-11 µ. longis, 2,5 µ. crassis, junioribus 5-7 µ. tantum longis, utrinque tenuatis et obtusulis.

Hab. in foliis vivis, quæ cito exsiccantur Ceratoniæ Siliquæ in agro Formiano Ital. merid. Aprili 1911. Morbum gravem affert. Cfr. Campbell l. c.

20. Ramularia scabiosa Mac Alp. et Tryon in Mac Alpine Fung. 8195 Dis. Citrus (1899) p. 88, tab. 19, fig. 56. — Cæspitulis definitis, late brunneolis, circularibus, ambitu sinuosis, circ. 2 mm. diam., margine leviter elevatis, demum senio nigricantibus, area centrali depresse et pallidiore; hyphis fertilibus cæspitulosis, erectis, simplicibus, subseptatis, hinc inde sæpius subconstrictis, hyalinis v. pallidis, intus granulosis, conidio longioribus; conidiis concoloribus, terminalibus, singulis, interdum binis superimpositis, cylindraceis, utrinque obtusis, 8-9 × 2, bilocularibus, utraque cellule guttulata et granulosa.

Hab. in utraque pagina et petiolis foliorum vivorum Citri Aurantii et C. Limonis, Toowoomba et Queensland Austra-

liæ. — Ob cæspitulos demum nigricantes a typo generis sat recedit.

21. Ramularia Tulasnei Sacc. — Syll. IV p. 203. — Var. Fragariæ- 8196 vescæ C. Mass., Osserv. fitol. in Madonna Verona v. II (1908) Extr. p. 9. — Maculis minutis (0,5-1 mm.) expallentibus et zona rubella limitatis; cæspitulis cito evanidis, epiphyllis; hyphis fertilibus fasciculatis e stomatum ostiolo egredientibus, sæpe continuis, apicem versus attenuatis, pro more alterne denticuligeris, 25-40 × 3-3,5; conidiis catenulatis cylindraceis, dein 1-2-septatis 20-36 × 4.

Hab. in foliis Fragariæ vescæ, Tregnago Verona Italia boreali

22. Ramularia Trotteriana Sacc. — Syll. fung. XVIII p. 548. — 8197 Var. Gei-urbani Mass. in Sacc., Not. Myc. VII, Ann Myc. IV (1906) p. 274. — A typo differt maculis non atro-purpureo-marginatis sed linea angusta fusco-rufescente cinctis; hyphis conidisque paullo crassioribus, nempe usque 4 μ. cr.

Hab. ad folia languida Gei urbani in silva Mantica prope Veronam. Ital. bor. (C. Massalongo). — Ram. Vaccarii T. Ferraris in Geo montano videtur forma luxurians R. Trotterianæ in eadem Gei specie lectæ.

23. Ramularia Epilobii-rosei Lindau, in Rabenh. Kryptog. Fl. Ed. II 8198 Hyphom. p. 474 (1906). — Maculis subrotundatis v. oblongis, majusculis, sæpe internerviis, griseo-virentibus v. pallide brunneis, immarginatis, arescentibus; cæspitulis amphigenis brunneolo-griseis, flocculosis; conidiophoris ex stomatibus erumpentibus, hypostromate brunneolo suffultis, indivisis, raro septatis, rectis, apice noduloso-denticulatis v. sæpius tantum 1-apiculatis, hyalinis, usque ad 20 × 4; conidiis cylindraceo-fusoideis utrinque acutulis v. obtusulis, rectis, plerumque bacillaribus, rarius continuis v. 3-cellularibus, hyalinis, subinde binis superimpositis, 20-42- (sæpius 30-38) × 5.

Hab. in foliis Epilobii rosei pr. Triglitz Brandenburg (JAAP) et Viborg Jutlandiæ (LIND).

24. Ramularia Saniculæ Linh. in Fung. Hung. n. 194 (1883) c. ic., 8199 Lindau Deutsch. Krypt. Fl. Pilze VIII p. 480. — Maculis inferne tantum manifestis, orbicularibus, rubello-brunneis, medio flavido-albis; cæspitulis hypophyllis, griseo-albis; conidiophoris fasciculatis ex stomatibus exeuntibus, continuis, hinc inde flexis, ad genicula denticulatis, 29-54 × 3-5; conidiis oblongo-cylindraceis, utrin-

que rotundatis, rectis curvulisve, continuis v. 1-3-septatis, hyalinis,  $2042 \times 4-5-5,5$ .

Hab. in foliis Saniculæ europææ, Trentschiner Kom. Hun-

gariæ (LINHART).

25. Ramularia Pimpinellæ Jaap, Ann. Myc. VI (1908) p. 215. — Macu- 8200 lis amphigenis, polygonis, brunneis vel subflavidis; cæspitulis plerumque hypophyllis, parvis, fere inconspicuis, albidis; conidiophoris simplicibus, hyalinis, 15-30 µ. long., apice cicatricibus conidiorum signatis; conidiis cylindraceis, apice rotundatis vel etiam attenuatis 2-4-cellularibus, raro unicellularibus, non constrictis, hyalinis,  $18-38 \approx 3,5-3,5$ .

Hab. in foliis vivis Pimpinella magna prope Obersee-

land in Karawanken Carnioliæ.

26. Ramularia Libanotidis Bubák, Beitr. Pilzfl. Hung. in Növényta. 8201 ni Közlemények (1907) Heft 4, Extr. p. 41. - Maculis internerviis, irregularibus, alutaceis, sæpe apicalibus; cæspitulis e stomatibus erumpentibus, pseudostromate subepidermico suffultis, hyalinis deorsum continuis, rectis, 1-septatis, sursum curvulis, 1-5denticulatis, 10-30 µ., raro usque ad 50 µ. longis, rarius superne dichotomis; conidiis fusoideis v. cylindraceis, 1-3-cellularibus, utrinque tenuatis, hyalinis, 12-32 × 2-2,5.

Hab. in foliis vivis Libanotidis montanæ pr. Herkules-

fürdö Hungariæ (Bubak).

27. Ramularia Peucedani Hollós, Ann. Mus. Nat. Hungar. VII 8202 (1909) p. 58. — Maculis rufo-brunneis, indefinitis, plerumque apicem foliorum occupantibus; cæspitulis amphigenis, minutis, albidis; conidiophoris fasciculatis, continuis, sursum denticulatis, hyalinis, 10-14 × 2; conidiis cylindraceis, utrinque obtusulis, rectis v. curvulis, continuis v. plerumque bicellularibus, raro 2-septatis, hyalinis,  $18-22 \approx 2-3.5$ , catenulatis.

Hab. in foliis vivis Peucedani arenarii prope Kecskemét Hungaria.

28. Ramularia saprophytica Bubák, Ann. Mycol. IV (1906) p. 121. 8203 — Conidiophoris ex hypostromate minuto nigro 40-60 μ. diam. ex stomatibus erumpente oriundis, 30-60 × 3, curvulis, hyalinis, sursum denticulos 3-7 remotiusculos gerentibus; conidiis breviter catenulatis, primo fusoideis, continuis, demum cylindraceis bicellularibus, utrinque acutatis, hyalinis, 10-22 × 2-3.

Hab. in caulibus emortuis siccisque Heraclei Sphondylii pr. Tabor Bohemiæ (BUBAK).

29. Ramularia Imperatoriæ Lindau, in Jaap Beitr. Pilzf. d. Schw., 8204 Ann. Myc. v. V (1907) p. 269. — Maculis subrotundis, oblongis v. irregulariter angulosis, interdum confluentibus, sæpius sparsis, usque ad 1 cm. lat., brunneis v. griseo-brunneis margine, angusto atro acute cinctis, superne vero zona latiore atra, concentrice signata cinctis; cæspitulis amphigenis, pruinam albam plus minus densam fingentibus; conidiophoris ex v. prope stromata fasciculatim erumpentibus, indivisis, parce septatis v. continuis, non denticulatis, apice rotundatis, hyalinis, 20-30 × 3; conidiis cylindraceis utrinque tenuato-rotundatis, continuis v. bicellularibus, subinde binis superimpositis, hyalinis, 20-34 × 3-3,5.

Hab. in foliis vivis Imperatoriæ Ostruthii, Simpeln Helvetiæ et in Tiroli australi (JAAP), Keilberg in Erzgebirge (KRIEGER).

30. Ramularia Gardeniæ C. Mass., Madonna Verona III (1909) p. 21. 8205 — Vix maculigena, pro more hypophylla; hyphis conidiophoris dense eæspitosis, subramosis, vulgo continuis, extremitatem versus alterne minute denticuligeris, 15-40 × 2-2,5; conidiis catenulatis ex ovoideo fusoideis, longitudine varia 4-12 × 2-2,5, fere semper continuis, majoribus 1-septatis.

Hab. in foliis languidis Gardeniæ grandifloræ, in Horto Menegazzoli Veronæ Ital. bor. — Ad Ovulariam vergit.

31. Ramularia Loniceræ Vogl., Ann. Acc. Agr. Torino (1904) p. 72 8206 cum icone et ap. Sacc. in Ann. Myc. III (1905) p. 169. — Maculis castaneis, rotundis v. irregularibus, 2-3-6 mm. et ultra latis; cæspitulis gregariis, hypophyllis, candidis; conidiophoris fasciculatis, simplicibus, continuis, hyalinis, ad apicem parce denticulatis, 50-90 × 3-3,5; conidiis cylindraceis, hyalinis, basi apiculatis, ad apicem rotundatis, continuis, raro 1-septatis, breviter catenulatis, 24-28 × 4.

Hab. in foliis Loniceræ ad muros, in Pedemontio Italiæ bor.

32. Ramularia Asteris-Tripolii Jaap, Bot. Ver. Prov. Brandb., I 8207 (1908) p. 48. — Maculis subrotundis, v. oblongis, sæpe indistinctis et immarginatis, subinde, in toto folio extensis, flavidis, dein griseis v. brunneolis; cæspitulis confertis, flocculosis albis, amphigenis; conidiophoris fasciculatis, erectis, hinc inde curvatis, simplicibus, in medietate superiore denticulatis, hyalinis, 45-85 × 4-7, ætate septulatis; conidiis cylindraceis, supra rotundatis, deorsum leviter tenuatis et apiculatis, rectis v. leviter curvis, 1-4-cellularibus, hyalinis, 25-48-(sæpius 34) × 4-4,5, rarius tantum 18 × 3,5, intus granulosis, subinde guttulatis.

Hab. in foliis Asteris Tripolii, Schleswig-Holstein (Sonder) Wiborg (Lind). — Observante Lindau verisimiliter hac species collidit cum Ram. Asteris (Phill. et Plowr.) Bub. — Syll. IV p. 29 (Fusidium).

33. Ramularia Taraxaci Karst. — Syll. IV p. 207. — Var. epiphylla 8208 Briosi e Cavara, Fungi parass. etc. (1904) n. 362. — Maculis amphigenis versiformibus, flavo-brunneis; cæspitulis fere semper epiphyllis; cetera typi.

Hab. in foliis Taraxaci vulgaris, Meaux Galliæ (P. Dumée).

34. Ramularia Asteris (Plowr. et Phill.) Bubák, Ann. Myc. VI 8209 (1908) p. 27. — Ita vocandum Fusidium Asteris Plowr. et Phill. — Syll. IV p. 29.

35. Ramularia Cirsii Allesch. — Sacc. Syll. XI p. 605. — Var. Cirsii 8210 arvensis C. Mass, Osserv. fitol., in Madonna Verona v. II (1908) Extr. p. 8. — Maculis subrotundis, foliicolis, subferrugineis, centro expallentibus; cæspitulis epiphyllis evanescentibus; hyphis fertilibus densissime fasciculatis ex ostiolo stomatum egredientibus continuis, 20-40 × 3,5-4, apice vix alterne denticuligeris; conidiis ex ovoideo elongato-cylindraceis, 27 × 2,5-3, vulgo continuis.

Hab. in foliis Cirsii arvensis, Tregnago Verona in Italia boreali.

36. Ramularia Ptarmicæ Lindau, in Rabenh. Krypt. Fl. Pilze IX 8211 p. 777 (1910). — Maculis minutis, subrotundis, atro-brunneis denique totum folium brunneo tingentibus; cæspitulis hypophyllis, sub vitro areolas albidas subpulvereas formantibus; conidiophoris fasciculatim e stomatibus exeuntibus, brevissimis, hyalinis, 5-6 μ. cr.; conidiis cylindraceis, rectis, utrinque rotundatis, 4-(raro 2-) cellularibus, hyalinis, oleoso-farctis, 40-58 × 5,5-6,5, subinde tereticlavatis, 6-cellularibus, usque ad 97 × 7,5.

Hab. in foliis Achilleæ Ptarmicæ pr. Triglitz et Hamburg Germaniæ (JAAP). — Ob conidia interdum elongata ad Cercosporellam nutat.

37. Ramularia Centaureæ-atro-purpureæ Bubák, Beitr. Pilzfl. Hung., 8212 in Növénytani Közlemények (1907) Heft 4 Extr. p. 39. — Maculis amphigenis, subrotundis, usque ad 5 mm. lat., sordide brunneis, centro alutaceis, acute et elevato-marginatis, leviter concentrice sulcatis, sparsis, interdum subconfluentibus; conidiophoris amphigenis e stomatibus erumpentibus in cæspitulos densos regulariter distributos collectis, hyalinis, sursum noduloso-curvis et paucis (2-4) denticulis præditis, 15-35 × 3-4; conidiis ellipsoideis,

fusoideis v. subcylindraceis, utrinque rotundato-acutatis, hyalinis, breviter catenulatis, 1-2-cellularibus,  $11-22 \times 3-4,5$ .

Hab. in foliis vivis Centaureæ atro-purpureæ pr. Herkulesfürdö Hungariæ (Bubak).

38. Ramularia variegata Ell. et Holw. — Syll. X p. 557. — Var. 8218 Petasitis-officinalis Allescher, Hedw. XXXIV (1895) p. 285. — Maculis amphigenis, irregularibus, superne brunneo-variegatis, inferne minus distinctis; cæspitulis hypophyllis; conidiophoris simplicibus, apice denticulatis, hyalinis; conidiis oblongo-cylindraceis, utrinque obtusis, primo continuis v. bicellularibus, denique 3-6-cellularibus, ad septa vix constrictis, hyalinis, 20-40 × 3-4,5.

Hab. in foliis vivis Petasitis officinalis, Graswangtal Bavariæ sup (Allescher).

39. Ramularia cervina Speg. — Syll. IV p. 208. — Var. Petasitis 8214 Bäuml. in Verhandl. zool. bot. Gesell. Wien L, p. 715 (1888). — Conidiophoris ramosis, continuis, non denticulatis, 30-60 × 2-3; conidiis hyalinis 18.24 × 2-3,5.

 $\it Hab.$  in foliis vivis Petasitis albi pr. Prencow Hungariæ (KMET).

40. Ramularia Jurineæ Hollós, Ann. Mus. Nat. Hung. V (1907) 8215 p. 467. — Maculis oblongis, brunneolis, fusco-marginatis; cæspitulis epiphyllis, albidis; conidiophoris, fasciculatis, continuis aut raro uniseptatis, nonnunquam sursum 1-3-denticulatis, hyalinis, 32-52 × 4-5; conidiis cylindraceo-clavatis, apice rotundatis, basi obtusatis, 1 septatis, hyalinis, 22-32 × 6-8.

Hab. in foliis vivis Jurineæ mollis prope Kecskemét Hungariæ.

41. Ramularia balcanica Bubák et Ranojevic, Ann. Mycol. VIII 8216 (1910) p. 396. — Maculis amphigenis, rotundatis, brunneolis, usque ad 10 mm. lat., æque distributis; confluentibus; cæspitulis amphigenis, punctiformibus, crebris, albis; conidiophoris cæspitosis ex stomatibus orientibus, sæpe edentatis, septatis, quandoque ramosis, 19-98 × 2-3, hyalinis; conidiis catenulatis, primum ex elongato ellipsoideis, globosis, fusoideis, dein elongatis, utrinque repente acutatis, raro rotundatis, demum bilocularibus, 7,5-28 × 2-4, hyalinis.

Hab in foliis vivis Cirsii candelabri, in Serbia. — A R. Onopordi differt conidiophoris longioribus quandoque ramosis, sæpius non denticulatis.

42. Ramularia Senecionis (Berk. et Br.) Sacc. — Var. carniolica 8217 Jaap, Ann. Myc. VI (1908) p. 216. — Conidiophoris usque ad 70 μ.

long., conidis 25.40 × 4-7, 1-2-raro 3-locularibus.

Hab. in foliis vivis Senecionis carniolici in Passo del Sella Tiroliæ cisalp.

43. Ramularia Anthemidis Hollós, Ann. Mus. Nat. Hung. V (1907) 8218 p. 467. — Maculis indeterminatis; cæspitulis hypophyllis, albidis; conidiophoris fasciculatis, continuis aut raro uniseptatis, apice subramosis, hyalinis, 54-72 × 4-5; conidiis cylindraceis, utrinque rotundatis v. obtusulis, continuis v. 1-septatis, hyalinis, 18-24 × 4-6.

Hab. in foliis languidis Anthemidis ruthenicæ prope Kecskemét et Nagy-Körös Hungariæ.

44. Ramularia Tanaceti J. Lind Ann. Mycol. III (1905) p. 431. — Macu-8219 lis magnam folii partem occupantibus, sæpe ab apice usque ad marginem attingentibus, brunneis v. atro brunneis, nunc immarginatis, nunc obsolete flavo-marginatis; cæspitulis hypophyllis, sparsis, punctiformibus, albis; conidiophoris e stomatibus fasciculatim erumpentibus, confertis, brevibus, plerumque continuis, apice rotundatis v. acutis, v. denticulo auctis, hyalinis, 38 × 4-4,5; conidiis cylindraceo-fusoideis, utrinque acutis, rarius binis superpositis, bicellularibus, hyalinis, 30-38 × 4.

Hab. in foliis Tanaceti vulgaris pr. Viborg. in Jutlandia (Lind).

45. Ramularia Doronici Vogl. in Annal. R. Accad. Agricolt. Torino 8220 LIII 1910 (1911) p. 581. — Maculis subrotundis v. oblongis, 4-12 mm. et sæpe ad marginem confluentibus, flavidis dein arescentibus, inferne velutinis, fuligineis, ex hyphis conidiophoris creberrimis cylindraceis, subarcuatis, subfuligineis, 34-38 × 7-9 conflatis; conidiis solitarie acrogenis, cylindraceis, obtusis, hyalinis v. dilute luteolis, 2-septatis, 52-64 × 10-12.

Hab. in foliis vivis v. languidis Doronici scorpioidis et D. Clusii in Hortulo alpino «Chanousia», Piccolo S. Bernardo Ital. bor. — Mycelium intra folium penetrans, varie ramoso-intricatum, septatum, modo 4-6, modo 8-10 μ. cr.

46. Ramularia montenegrina Bubák Bull. Herb. Boiss. 2 sér. VI 8221 (1906) p. 486. — Maculis amphigenis, subrotundatis v. irregularibus, 2-4 mm. latis, brunneis non distincte marginatis; cæspitulis amphigenis, albis; conidiophoris e stomatibus fasciculatim erumpentibus, parcis, primo rectis, apicem versus tenuatis, denticulo unico apicali præditis, demum leniter curvis et pluridenticulatis, hyalinis, 22-40 × 3,5-4,5; conidiis cylindraceis, utrinque obtusule tenuatis, 1-3-cellularibus, hyalinis, 13-35 × 2,5-4.

Hab. in foliis vivis Hedypnoidis scabræ et H. creticæ var. monspeliensis, Montenegro (Bubak).

47. Ramularia helvetica Jaap et Lindau, in Jaap Beitr. Pilzfl. d. 8222 Schw., Ann. Myc. v. V (1907) p. 269. — Maculis sparsis, viridulo-griseis v. viridulo-brunneis, irregulariter marginatis, demum intus albis, acuteque limitatis, siccis zona inæquali flavidula cinctis 4-5 mm. lat.; cæspitulis amphigenis, maculas strato pruinoso albo obtegentibus; conidiophoris ex stomatibus fasciculatim erumpentibus, simplicibus, parce septatis, edentatis, apice rotundatis, hyalinis 30-38 × 3,5; conidiis cylindraceis utrinque rotundatis, sæpius bicellularibus, raro 1-3-cellularibus, hyalinis, 27-40 × 3,5-4.

Hab. in foliis vivis Hieracii albidi ad Furkastrasse Helvetiæ, 2150 m. alt. — A Ram. conspicua rite distincta.

48. Ramularia Scorzoneræ Jaap, Ann. Myc. VI (1908) p. 216. — Ma-8223 culis foliicolis rotundatis v. elongatis, atro-brunneis, medio denique pallidioribus, parcis; cæspitulis albidis, inconspicuis; conidiophoris brevibus 10-20 × 2,5-3, simplicibus; conidiis cylindraceis, 1-2-cellularibus, 14-22 × 2-3.

Hab. in foliis vivis Scorzoneræ aristatæ, Seiser Alpe Tirolia cisalp.

49. Ramularia hamburgensis Lindau, in Rabenh. Kryptog. Fl. Ed. 8224 II Hyphom. (1906) p 528. — Maculis indistinctis viridulo-griseis v. brunneolis, immarginatis, subrotundis v. oblongis, interdum bullosis, subinde majorem folii partem occupantibus et tunc ochraceis, irregularibus; cæspitulis amphigenis, albo-punctiformibus; conidiophoris ex stomatibus dense fasciculatim erumpentibus, simplicibus, vix noduloso-curvulis, sursum levibus et apice subrotundatis, hyalinis, 30-45 ≈ 4; conidiis cylindraceis utrinque obtusis, v. acutulis, rectis, continuis v. sæpius bicellularibus, rarissime quoque 4-cellularibus, hyalinis, 20-30 ≈ 3,5-4,5.

Hab. in foliis vivis Hieracii vulgati pr. Ahrensburg et pr. Langenhorn in vicinia Hamburgi (JAAP) et in Hungaria (BUBAK).

50. Ramularia Prenanthis Jaap, Allg. Bot. Zeitschr. XII (1906) pag. 8225 125. — Maculis subrotundis, sæpius vero angulosis, internerviis, 1,5-3 mm. diam., interdum confluentibus et tunc magnam folii partem occupantibus, ochraceis v. brunneis, demum centro expallentibus v. flaventibus et purpureo-brunneo marginatis; cæspitulis hypophyllis, albis; conidiophoris ex stomatibus flasciculatim erumpentibus, indivisis, curvulis, sæpe edentatis, hyalinis, 18-25 × 3,5;

conidiis primo ovoideis, ellipsoideis, v. oblongis, dein cylindraceis, subinde clavulatis v. fusoideis, continuis v. bicellularibus, sæpe minute guttulatis, hyalinis,  $17-22 \times 3,5-5$ .

Hab. in foliis vivis Prenanthis purpureæ pr. Triberg in Schwarzwald m. 720 alt. (JAAP).

- 51. Ramularia silvestris Sacc. (1880) Syll. IV p. 207. Hujus 8226 synonymon est *Ramularia Dipsaci* Allesch. Verz. Südbayern Pilze p. 181, tab. I, fig. 8, (1887) lecta quoque in plurimis locis Germaniæ, Bohemiæ, Bosniæ, Belgii etc., in Dipsaco silvestri et Dips. fullonum.
- 52. Ramularia Campanulæ-rotundifoliæ Lindr. Mykol. Mitteil. 11-15 8227 in Acta Soc. pro Fauna el Fl. Fenn. XXVI (1904) pag. 16. Maculis 1-3 mm. lat., griseis v. rubellis, sæpe zona angusta luteola v. pallida cinctis; cæspitulis plerumque hypophyllis, albis; conidiophoris numerosis e stomatibus fasciculatim erumpentibus, subrectis, obtusis, continuis, apicem versus confertim 3-4-denticulatis, hyalinis, 40-55 × 4-6; conidiis bacillaribus, plerumque rectis, utrinque rotundatis, continuis, raro 2-3-cellularibus, ad septa non v. vix constrictis, hyalinis, 20-40 × 4-6.

Hab in foliis vivis v. languidis Campanulæ rotundifoliæ in Fennia (Lindroth).

53. Ramularia Campanulæ-barbatæ Jaap et Lindau, in Jaap Beitr. 8228 Pilzfl. d. Schw., Ann. Myc. v. V (1907) p. 269. — Maculis subrotundis 3-4 mm. diam., extus obscure marginatis, subinde marginalibus arescendo læte brunneis; cæspitulis amphigenis, minutissimis, albis; conidiophoris ex stomatibus dense fasciculatim erumpentibus, rectis, indivisis, continuis, hyalinis, ad 20 × 2,5-3; conidiis longe cylindraceis, utrinque rotundatis, rectis, rarius curvulis, sæpius bicellularibus, raro 1-3-cellularibus, hyalinis, 27-39 (sæpius 35) × 2,5-3.

Hab. in foliis Campanulæ barbatæ ad Hospitium M. Sempione, 2020 m. (JAAP).

54. Ramularia Scopoliæ Voss in Oesterr. Bot. Zeitschr. XXXIII 8229 p. 174 (1883) et Verhandl. zool. bot. Ges. Wien (1884) p. 21 t. I, f. 4. — Maculis epiphyllis, irregularibus, brunneis; cæspitulis hypophyllis effusis, griseis; conidiophoris brevibus parce denticulatis; conidiis cylindraceis, continuis v. bicellularibus, hyalinis, 16-18 × 5-55.

Hab. in foliis languidis Scopoliæ atropoidis pr. Idria Carnioliæ (Voss).

55. Ramularia ligustrina Maubl., Bull. Soc. Mycol. de Fr. XXII 8230 (1906) p. 70. — Maculis amphigenis, rotundatis v. ovatis, <sup>4</sup>/<sub>3</sub>-1 cm. latis, ochraceis, margine atro-brunneo cinctis; cæspitulis albidis, minutissimis, oculo nudo non v. vix conspicuis, simplicibus, hypophyllis, ex hyphis hyalinis, usque ad 20 μ. long. compositis; conidiis acrogenis, catenulatis, oblongis, continuis v. demum uniseptatis, 5-10 × 2,5. Pycnidia e gen. Septoria (S. Ligustri [Desm.] Kickx) minuta, formâ conidicâ sæpe coronata; sporulis filiformibus, hyalinis, curvulis, 14-19 × 1-1,5.

Hab. in foliis vivis Ligustri sp. sativi (?) prope Alençon Galliæ (Lemée).

56. Ramularia Vincæ Sacc. — Syll. IV p. 215. — Var. Vincæ-mediæ 8281 R. Maire, Bull. Soc. Myc. de France t. XXI (1905) fasc. 4, pag. 214. — Maculis latis, flavidis, indeterminatis, tarde brunnescentibus, subtus pulverulentis; conidiophoris ex stomatibus fasciculatim erumpentibus 90-100 × 2,5-3; conidiis cylindraceis, hyalinis, 20-40 × 3, pro more 2-3-septatis, utrinque obtusulis.

 $\it Hab.$  parasitice in foliis Vincæ mediæ, Valldemosa in ins. Balearibus — Homonyma var. ell. Traverso et Spessa ex Lusitania in eadem matrice, in Bol. Soc. Brot. XXV (1910) p. 186, differret conidiophoris multo brevioribus, nempe 28-40  $\approx$  3-4,5; an mera forma?

57. Ramularla Lycopi Hollós, Ann. Mus. Nat. Hung. V (1907) p. 467. 8282 — Maculis brunneis, nervis limitatis; cæspitulis hypophyllis, albidis; conidiophoris fasciculatis, continuis, sursum denticulatis, hyalinis, 25-35 × 3-4; conidiis cylindraceis, utrinque obtusulis, rectis v. curvulis, continuis aut raro 1-septatis, hyalinis, 16-28 × 3-4 catenulatis.

Hab. in foliis vivis Lycopi europæi prope Kecskemét Hungariæ.

58. Ramularia Sideritidis Hollós, Ann. Mus. Nat. Hung. V (1907) 8283 p. 467. — Maculis brunneolis, nervis limitatis; cæspitulis hypophyllis, albidis; conidiophoris fasciculatis, continuis, sursum 2-denticulatis, hyalinis, 28-44 × 3-4; conidiis cylindraceis, utrinque obtusulis, rectis v. curvulis, continuis v. bilocularibus, hyalinis, 28-36 × 3-4.

Hab. in foliis languidis Sideritidis montanæ prope Kecskemét Hungariæ.

59. Ramularia Ajugæ (Niessl) Sacc, — Syll. IV p. 212. — Var. Aju- 8284 gæ pyramidalis Sacc., Ramularia Tozziæ Lindau, in Jaap Beitr.

Pilzfl. d. Schw., Ann. Myc. v. V (1907) p. 269. — Maculis subrotundis, acute limitatis, immarginatis, brunneis, mox confluentibus et majorem folii partem occupantibus; cæspitulis amphigenis, demum farinoso-pulvereis; conidiophoris ex stomatibus dense fasciculatim erumpentibus, plerumque rectis, subinde hinc inde curvulis sursum pluridenticulatis v. levibus, septatis v. non hyalinis, 25-40 × 3; conidiis cylindraceis, rectis, utrinque rotundatis v. rarius acutulis, raro bicellularibus, interdum binis superimpositis, hyalinis, 11-27 × 3,5-4.

Hab. in foliis viventibus Ajugæ pyramidalis (non Tozziæ) in Helvetia (JAAP).

- 60. Ramularia Lysimachiæ Thüm. Syll. IV p. 213. Huc ducen- 8235 da est Ramularia paulula Davis, Trans. Wisconsin Ac. of Sc. XVII, Pt. II (1909) p. 762, in foliis Lysimachiæ (Racine Amer. bor.) non Hyperici Plenior diagnosis ex Davis l. c.: Maculis definitis, suborbicularibus, brunneis, margine obscuriore, 1-4 mm. diam., sæpe in areolis decoloratis insidentibus; hyphis amphigenis, sparsis, hyalinis, subrectis, quandoque conidiis lateralibus, præditis, 20-40 × 3-5; conidiis hyalinis, catenulatis, cylindraceis rectis, nucleolatis, raro uniseptatis, 20-30 × 4-5.
- 61. Ramularia Menyanthis P. Magn. in sched. (1906); cfr. Pilzfl. Tir. 8286 p. 546, Lindau Deut. Krypt. Fl. Pilze VIII p. 532. Maculis subrotundis v. oblongis, primo 1-2 mm. diam., dein multo amplioribus, brunneis, zona decolorata indistincta marginatis, parum elevatis, denique albis et elabentibus; conidiophoris et conidiis maturis adhuc ignotis.

Hab. in foliis et petiolis Menyanthis trifoliatæ pr. Innichen Tiroliæ (Stolz, P. Magnus).

62. Ramularia tirolensis Maire, Oesterr. Bot. Ztschr. LVII (1907) 8287 p. 322. — Maculis brunneis, irregulariter rotundatis, 1-6 mm. diam., subinde confluentibus; cæspitulis amphigenis, albis, e stomatibus erumpentibus; conidiophoris simplicibus, rectis, continuis v. septatis, apice 1-3-dentatis, 15-39 × 3; conidiis hyalinisle vibus, longe cylindraceis, 1-8-septatis, apice rotundatis, basi acutiusculis, 30-75 × 2-5.

Hab. in foliis languidis Primulæ imbricatæ, Montagna d'Andraz, Tirolia. — A R. Primulæ conidiis multiseptatis longioribus differt.

63. Ramularia Cerinthes Hollós, Ann. Mus. Nat. Hungar. VII (1909) 8238 p. 57. — Maculis rotundatis, atris, ochraceo-marginatis; cæspitu-

lis epiphyllis, albidis; conidiophoris fasciculatis, continuis, sursum denticulatis, hyalinis,  $20-40 \times 3-4$ ; conidiis cylindraceis, utrinque rotundatis v. obtusulis, continuis, dein 1-septatis, hyalinis, intus granulosis,  $18-24 \times 3-5$ .

Hab. in foliis vivis Cerinthes minoris prope Kecskemét Hungariæ.

64. Ramularia Harai P. Henn, Engl. Jahrb. XXXVII (1905) p. 165. 8289 — Maculis fuscidulis, effusis; cæspitulis hypophyllis, albidis, effusis; hyphis parce ramosis, hyalinis, 2-2,5 μ. cr.; conidiis cylindraceofusoideis, utrinque obtusis, 1-3-septatis, rectis v. curvulis, hyalinis, 10-30 × 3-4.

Hab. in foliis Phytolaccæ acinosæ var. esculentæ Gifu Mino Japoniæ (S. HARA).

65. Ramularia? leptospora Speg., Myc. Argent. V p. 420, in Anal. 8240 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis orbicularibus, 2-10 mm. diam., centro pallescenti-subcinerescentibus, pellucidis, ambitu rufescentibus, areola angusta violascente limitatis; acervulis hypophyllis gregariis candidis, 50-60 μ. diam., ex hyphis tenuibus simplicibus gracilibus efformatis; conidiis cylindraceis subobtusiuscule rotundatis, 10-30 × 2, rectis v. lenissime subcurvulis, catenulatis, acrogenis, primo continuis dein 1-septatis, postremo 3-septatis, hyalinis, levibus.

Hab. ad folia languida Rumicis pulchri in herbosis La Plata Argentina Amer. austr.

66. Ramularia Piperis P. Henn., in Fl. du Bas- et Moy. Congo, 8241 An. Mus. du Congo, v. II, fasc. II (1907) p. 103. — Maculis amphigenis angulato-rotundatis subbullatis, brunneo-fuscis v. atris; cæspitulis hypophyllis, albidis; hyphis fasciculatis vix ramosis, hyalinis, 3-4 μ. cr.; conidiis oblonge fusoideis utrinque acutis 1-3-septatis, hyalinis, 12-24 × 3,5-4.

Hab. in foliis Piperis sp. Kisantu Congo, Africa (VANDERYST).

67. Ramularia Parietariæ Pass. — Syll. IV pag. 216. — Var. mi- 8241\*\*
nor Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) p. 486. — Conidiis sæpius continuis, oblongis v. cylindraceis, 10-24 × 3-4,5.

Hab. in foliis vivis Parietariæ officinalis, Montenegro (Rohlena). — Forte tantum status junior speciei.

68. Ramularia Butomi J. Lind, Ann. Mycol. III (1905) p. 431. — Ma-8242 culis sparsis, minutis, oblongis, angulosis, nigris; cæspitulis albis maculas pruinoso-tegentibus; conidiophoris 3-5-fasciculatis, noduloso-flexuosis, plerumque 3-denticulatis, septatis, hyalinis, 15-24.

 $\mu$ . longis; conidiis oblongo-ovoideis, catenulatis, hyalinis, modo continuis  $7 \times 2.5$ , modo bicellularibus et tunc  $15-18 \times 3$ .

Hab. in tribus foliorum paginis Butomi umbellati, Stockholm Sueciæ.

69. Ramularia Smilacinæ Davis, Trans. Wisc. Acad. Arts. a. Sc. XV 8248 (1907) p. 777. — Maculis pallide flavis v. albidis, margine angusto rubro-brunneo cinctis, rotundis v. oblongis, sæpius 5-10 mm. diam.; cæspitulis albis hypophyllis; conidiophoris 10-16 × 3; conidiis cylindraceis, continuis, catenulatis, hyalinis, 18-30 × 3

Hab. in foliis Smilacinæ racemosæ, Pacific Northwest Amer. bor. (DAVIS).

70. Ramularia Wagneræ Barthol. Fungi Columb. n. 2787 (1909). Dia-8244 gnosis desideratur.

Hab. in foliis Wagner amplexicaulis, Colorado Amer.

71. Ramularia Narcissi Chittenden, Garden. Chron. 3 ser. XXXIX 8245 (1906) p. 277.

Hab. in foliis Narcissi specierum cultarum, quas valde vexat. — Verisimiliter non differt a Ramularia Vallisumbrosæ Cav. (1899). — Syll. XVI p. 1046 — cujus forma evolutior videtur Cercosporella Narcissi Boud. (1901). — Syll. XVIII pag. 563 — pariter perniciosa.

- ERIOMYCOPSIS Speg., Myc. Argent. V p. 429, in Anal. Mus. Nac. Buenos Aires XX (1910). (Etym. erion lana et myces) Hyphomycetea mucedinea, macronemea, subcapituligera monachospora, conidiis fusoideis pluriseptatis majusculis hyalinis prædita.
- 1. Eriomycopsis Bomplandi Speg. l. c. p. 429. Candida velutina, 8246 in Meliolarum mycelio parasitans; hyphis fertilibus erectis pluriseptatis (5-6) 180-200 × 7-8, articulo supremo colliculoso-papillato conidifero, 40-50 × 9-10; conidiis ex denticulis articuli supremi oriundi patentiusculis, 50-70 × 10-11, sæpius 3-septatis, utrinque acutis, leniter arcuatis, ad septa non v. lenissime constrictis.

Hab. ad folia viva Bignoniaceæ scandentis cujusdam in silvis prope Bompland Misiones, Argentina America austr. (P. JÖRGENSEN).

DACTYLIUM Nees — Syll. IV p. 188, X p. 551.

1. Dactylium licheniforme P. Henn., in F1. du Bas- et Moy. Congo, 8247

Ann. Mus. du Congo, v. II, fasc. II (1907) p. 103. — Cæspitulis effusis, niveis; hyphis fertilibus erectis rigidis, usque ad 400  $\mu$ . longis, basi 10–12  $\mu$ . cr., repetito-verticillato-ramosis, hyalinis, ramulis 4–5  $\mu$ . cr.; conidiis acrogenis, clavatis, obtusis, 1–3–septatis, hyalinis, 18-24  $\approx$  5-6.

Hab. inter mycelium Microcycli Derridis P. Henn. ad folia Derridis sp., Dembo Congo (Vanderyst). — Dactylium tenuissimum Berk., Journ. Hort. Soc. I (1845) p. 34, t. IV f. 20-21, observante cl. Cooke Handb. p. 608 est forma Fusarii Solanituberosi Desm.

- VARICOSPORIUM W. Kegel, Ber. Deutsche Bot. Ges. XXIV (1906) p. 213 (Etym. varicus et spora). Mycelium saprophyticum, septatum, ramosum, hyalinum, in culturis viridulum, senio rhabdos rhizomorphoideos formans. Conidia ex articulis extimis ramulorum formata, rectangulariter patentia, hyalina, cylindrica, 5-8-septata, successive conidia secundaria similia pleurogene generentia et tunc colonias arbusculiformes gignentia.
- 1. Varicosporium Elodeæ W. Kegel I. c. cum icone. Cæspitulis 8248 viridulis; conidiis longitudine ludibundis, 4-8-cellularibus, cylindricis, rectiusculis, utrinque rotundatis, ad septa vix constrictis, facile secedentibus, hyalinis, intus nubilosis, levibus, 4-5 μ. cr., arbusculas 75-100 μ., sub aëre usque ad 170 μ. longas formantibus.

 $\it Hab.$  in ramulis foliisque emortuis v. morientibus  $\it Elode \it ext{anadensis}$ , in quibus saprophytice vivit. In gelatina et agar optime colitur.

- GUEGUENIA Bainier, Bull. Soc. Mycol. Fr. XXIII (1907) pag. 106 (Etym. a cl. doct. F. Gueguen, professore parisiensi). Hyphæ steriles repentes; fertiles erectæ, septatæ, apice inæqualiter ramosæ, ramusculis ultimis digitatis et corymbose fasciculatis. Conidia læte colorata, solitaria, biseptata, articulo medio ovoideo, superiore hemisphærico. Ab Amblyosporio dignescitur ramis non verticillatis et conidiis solitariis, septatis.
- 1. Gueguenia cæspitosa Bainier, Bull. Soc. Myc. Fr. l. c. pag. 106, 8249 t. XIII. Cæspitulis pannosis, effusis; conidiophoris erectis, filiformibus, 400 × 22, septatis, sursum patenti-ramosis, ramulis pariter breviter et patenti-ramulosis, ultimis fasciculato-verticillatis, obclavatis, apice conidigeris; conidiis oblongo-ellipsoideis utrinque obtusatis, 2-septatis, articulo medio maximo, totis 16,8 × 8,4, sub-

castaneis, articulo summo subcupuliformi v. hemisphærico hyalino. Hab. in fungis subputrescentibus in Gallia. — Color cæspitulorum non indicatus.

## Sect. 4. Hyalodictyæ.

- CONIODICTYUM Har. et Pat., Bull. Soc. Myc. de Fr. XXV (1909) p. 13 (Etym. conio pro Coniosporium et dictyum pro Dictyosporium). — Mycelium parcissimum, ramosum, hyalinum. Conidia hyalina, stipitata, clathrato-pluriseptata.
- 1. Coniodictyum Chevalieri Har. et Pat., l. c. pag. 14, cum icon. 8250 Mycelio 2-3 μ. circ. crasso, inter cellulas matricis percurrenti; conidiis levibus irregulariter globulosis, supra planiusculo-truncatis, inferne rotundatis, ambitu bullato, bullis sulcis profunde disjunctis, intus muraliter pluriseptatis, 18-30 μ. diam., stipite hyalino deorsum attenuato, simplici, eseptato, apice 5 μ. cr., 20-30 μ. alto suffultis; stipitibus parcis cæspitose approximatis.

Hab. in fructibus Zizyphi Barlei qui valde deformantur et pulvere albo-luteolo, farinaceo crasse obteguntur, Bousso inter et Fort Archambault nec non prope Mamoun in Chariensi ditione Africæ (A. Chevalier).

- HYALODEMA P. Magn, Ber. deutsch. bot. Ges. XXVIII (1910) p. 379 (Etym. hyalos albus et dema sarcina). Biophilum, mycelio hyalino intercellulari haustoria emittente præditum. Conidiophora superficialia erecta fasciculata simplicia et continua. Conidia solitaria acrogena globoso-ovoidea, pluriseptato-clathrata, hyalina; paraphyses tereti-clavulatæ, continuæ, hyalinæ intermixtæ. Teste v. Höhn. Ann. Mycol. (1910) p. 590 hoc genus a Coniodictyo H. et P. non differt, sed confutat prof. Magnus.
- Hyalodema Evansii P. Magn., l. c. p. 380, tab. XI. Characte- 8251 res generis, cecidogenum; conidiis irregulariter globulosis, sæpe leniter angulosis, levibus, episporio tenui præditis, 31 v 20; conidiophoris longitudine varia, sæpe conidium subæquantibus.

Hab. in ramis petiolisque Zizyphi sp. ubi cecidia subglobuloso-depressa, rugulosa, 3-10 mm. crassa efformat, Zoutpansberg Transvaal Africæ (G. B. Pole Evans).

### Sect. 5. Scolecosporæ.

CERCOSPORELLA Sacc. — Syll. IV p. 218, X p. 564, XI p. 606, XIV p. 1065, XVI p. 1046, XVIII p. 561.

Cercosporella Rapistri Hollós, Ann. Mus. Nat. Hung. VI (1908) 8252
 p. 536. — Maculis sparsis, oblongis, alutaceis, indeterminatis, 5-8
 mm. diam.; conidiophoris epiphyllis, cæspitulosis, niveis, leniter curvis, edentatis, 25-30 × 3-4; conidiis fusoideis, rectis vel curvulis, 1-3-septatis, hyalinis, 60-90 × 3-4.

Hab. in foliis vivis Rapistri perennis prope Kecskemét Hungariæ

2. Cercosporella Sidæ P. Henn., in Fl. du Bas- et Moy-Congo, in 8258 Ann. Mus. du Congo, v. II, fasc. III (1908) p. 230. — Cæspitulis epiphyllis late effusis, pallidis; hyphis filiformibus septatis, apice ramulosis, hyalinis v. flavidulis, 4-6 μ. cr.; conidiis fusoideis vel subclavatis, sæpe curvatis, acutis, pluriguttulatis, dein 3-7-septatis, 25-45 × 4-6. hyalinis.

Hab. in foliis Sidæ cordifoliæ, Sonzo Congo, Africa trop. (VANDERYST).

3. Cercosporella elata Sacc., in Ann. Mycol. VIII (1910) p. 339. — 8254 Cæspitulis late, densiuscule gregariis, hypophyllis, subsuperficialibus, punctiformibus, gossypinis, candidis, 0,5 mm. diam.; hyphis fasciculatis pro genere elatis, filiformibus, 150-180 × 5-5,5 totis hyalinis, 4-5-septatis, a medio sursum tortuoso-fractiflexis, ad angulos cicatriculas majusculas conidiorum præbentibus; conidiis elongato-fusoideis, sæpe obclavatis, 3-4-septatis, non constrictis, 45-68 × 5,5-6, totis hyalinis, sursum magis attenuatis.

Hab. in foliis vivis vix maculosis Chasmantheræ dependentis, Ghinda-Baresa, alt. 830 m. (Hamasen) Africæ (Prof. Hadr. Fiori). — Pulcra et distincta species.

4. Cercosporella Chærophylli Aderh., Jahrsb. Schles. Ges. vat. Kult. 8255
80°, II Abt. (1903) p. 17, Lindau Krypt. Fl. Hyph. VIII, p. 424.
— Maculis foliorum plerumque marginalibus, irregularibus, e brunneo griseis; conidiis cylindraceis, 40-65 ≈ 4-6.

ex hyphis basi coalescentibus cæterum liberis sed constipatis sæpius continuis,  $30-40 \times 3-4$ , bacillaribus, simplicibus; conidiis lenissime falcatis, non v. vix subclavulatis,  $60-100 \times 5-6$ , 3-7-septatis, ad septa non constrictis, hyalinis, levibus.

Hab. ad folia viva Verbesinæ in uliginosis circa La Plata Argentina Amer. austr.

6. Gercosporella Achilleæ Jaap, Beitr. Pilzfl. d. Schw., Ann. Myc. 8257 V (1907) p. 270. — Maculis majusculis, subrotundis v. oblongis, brunneis dein expallentibus, atro-brunneo-marginatis; cæspitulis epiphyllis, albis; conidiophoris bicellularibus, hyalinis, 20 × 5; oonidiis filiformibus, hyalinis, 5-8-cellularibus usque ad 100 × 2,5, apicem versus sæpe tenuatis et 1,5 μ. cr.

Hab. in foliis vivis Achille & microphylle in Montauvert pr. Chamonix, 1910 m. alt. Sabaudiæ (JAAP).

7. Cercosporella Podospermi Hollós, Ann. Mus. Nat. Hungar. VIII 8258 (1910) pag. 9. — Maculis totum folium occupantibus, ochraceis; conidiophoris epiphyllis, cæspitulosis, niveis, edentatis, 20-25 × 3-4; conidiis cylindraceo-clavatis, infra incrassatis et obtusatis, sursum leniter attenuatis, rectis v. curvulis, 2-septatis, hyalinis, 70-100 × 4-5.

Hab. in foliis languidis Podospermi Jaquiniani prope Kecskemét Hungariæ.

8. Cercosporella Scorzoneræ v. Höhn. Ann. Myc. III (1905) p. 338. — 8259 Maculis singulis v. paucis in quoque folio, oblongis, 5-10 mm. long., centro expallentibus, late purpureo-marginatis; cæspitulis tenuissimis, amphigenis, 15-30 μ. diam., e cuticula erumpentibus, subrotundis v. oblongis; conidiophoris modo paucis modo copiosis, dense fasciculatis, hyalinis, cylindraceis, bicellularibus, sursum 1-denticulatis, 30 × 3-4; conidiis rectis utrinque obtusulis, sursum sensim tenuatis, hyalinis, 3-septatis, 50-70 × 2-3.

Hab. in foliis Scorzoneræ humilis, Wienerwald Austriæ (v. Höhnel).

9. Cercosporella Hieracii Jaap, Beitr. Pilzfl. d. Schw., Ann. Myc. 8260 V (1907) p. 270. — Maculis latiusculis, brunneis, nunc angulosis internerviis, nunc subrotundis v. oblongis, flavo-marginatis, ob conidia albo-pruinosis; cæspitulis epiphyllis, confertis, albis; conidio-phoris paucis laxe fasciculatis, hyalinis, ad apicem denticulatis, 40 × 2; conidiis filiformibus, sursum tenuatis, curvulis, hyalinis, guttulatis, indistincte septulatis, 90 × 2-2,5.

Hab. in foliis vivis Hieracii prenanthoidis pr. Platten super Zermatt, 1700 m. alt. in Helvetia (JAAP).

10. Cercosporella Unguis-cati Speg., Myc. Argent. V, p. 422, in An. 8261 Mus. Nac. Buenos Aires XX (1910). — Maculis solitariis amphigenis suborbicularibus, 3-7 mm. d., indeterminatis, ad epiphyllum atro-purpureis, ad hypophyllum purpureo-tabacinis; cæspitulis hypophyllis gregariis, erumpentibus, subhemisphæricis, 50-100 μ. d.; hyphis continuis v. apice 2-3-denticulatis, 5,5 × 3,5, quandoque 1-3-septatis, hyalinis; conidiis vermicularibus gracilibus valde elongatis inferne subincrassatulis rotundatisque, continuis v. 1-3-septatis, non v minute guttulatis, hyalinis, 50-120 × 3-7.

Hab. ad folia viva Bignoniæ unguis-cati in hortis Santa Catalina et La Plata Argentina Amer. austr.

11. Cercosporella mogiphanes Speg., Myc. Argent. V, pag. 423, in 8262 Anal. Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis orbicularibus, 3-7 mm. diam., indeterminatis, pallescentibus, plus minusve bullosis; cæspitulis amphigenis erumpentibus penicilliformibus dense gregariis, chlorinis, ex hyphis cæspitosis, simplicibus, 100-200 × 5-6, septulatis, denticulatis, hyalinis efformatis; conidiis subcylindraceis, utrinque obtusiusculis, 20-100 × 5-7, primo continuis dein 3-septatis, ad septa sæpe constrictulis, rectis v. vix arcuatulis, hyalinis.

Hab. ad folia viva Mogiphanes cujusdam in aridis prope Metán Salta Argentina Amer. austr. — A Cercospora gomphrenicola notis plurimis distincta.

### Sect. 6. Helicosporæ.

HELICOON Morg. - Syll. XI p. 609.

1. Helicoon politulum (Schulzer) Lindau, Deutsch. Krypt. Fl. Pilze 8263 IX (1908) p. 277, Helicosporium politulum Schulzer, Fl. LX (1877) p. 271. — Cæspitulis griseo-atris, inconspicuis, plura mm. latis; mycelio repente, septato, ramoso, subimpellucido; conidiophoris gregariis, simplicibus, rectis v. curvis, remote septatis, ad septa subconstrictis, æquicrassis, atro-brunneis, pellucidis; conidiis acrogenis in capitulum coadunatis, aquæ ope solutis, sinistrorsum spiraliter convolutis, crebro septatis, saturate griseis, diaphanis.

Hab. ad asseres salicinos putrescentes udos prope Vinkovce Slavoniæ.

Helicoon Fairmani Sacc., Not. Myc. VII, Ann. Myc. IV (1906) 8264
 p. 277. — Mycelio parcissimo; conidiis gregariis, solitariis v. sub-

solitariis, punctula pallida et sordide rosea (sub vitro) fingentibus, ambitu ellipsoideis,  $45 \times 28$ , conidiophoro brevissimo cylindraceo (sæpe non manifesto) suffultis, ex spiris 6-8 arcte convolutis, 5  $\mu$ . cr. parce tenuiterque septatis formatis, intus cavis, dilutissime roseis.

Hab. ad ligna putrescentia dejecta, socio Bactridio minuto, in silvis pr. Lyndonville New York, Amer. bor. (Ch. Fairman). — A ceteris generis speciebus omnino distinctum.

### HELICOMYCES Link - Syll. IV p. 233, X p. 568, XI p. 608.

1. Helicomyces tenuis Speg., Myc. Arg. V, pag. 423, in Anal. Mus. 8265 Nac. Buenos Aires XX (1910). — Plagulis tenuibus arachnoideis suborbicularibus 5-15 mm. diam., albis; hyphis dense intricatis ramulosis, 4-5 μ. diam., septulatis, laxe minuteque papillatis, hyalinis; conidiis filiformibus circinatis, 80-120 × 1,5-2, apice supero acuto infero subincrassatulo obtuso, dense minuteque guttulatis, hyalinis.

Hab. ad culmos putrescentes Arundinis Donacis, Lezama prope Buenos Aires Argentina Amer. austr. — Ab H. roseo conidiis triplo gracilioribus distinctus.

#### Appendix ad Mucedinaceas.

Complures species a clinicis describuntur veluti causæ morborum; sed formæ plerumque tam proteæ et abnormes videntur ut non nisi culturis et notis bio-chemicis possint dignosci. Sylloge, more suo, similes has notas bio-chemicas referre non potest, utile tamen videtur ab egregia Synopsi cl. F. Guéguen (Les Champignons parasites de l'homme et des animaux, Paris 1904) enumerationem sequentem excerpere:

TRICHOPHYTON Malmst. — Guég. l. c. p. 137.

#### Sect. 1. Endothrix Sabouraud.

1. Trichophyton tonsurans Malmst., Trichomyces tonsurans Malmst. 8266 Guég., l. c. p. 138, f. 3, Achorion Leberti Ch. Rob., Oidium tonsurans W. Zopf, Trichophyton megalosporum endothrix Sabouraud.

Hab. in infantibus in quibus causat tineam tonsurantem; generat quoque trichophytiasim barbæ hominum.

- 2. Trichophyton Sabouraudi R. Blanchard, Guég. l. c. p. 139. 8267

  Hab. in infantibus et adolescentibus in quibus tineam tonsurantem peladoide dictam causat.
- 3. Trichophyton caninum Matruchot et Dassonville, Guég. l. c. p. 139, 8268 fig. 4.

Hab. in canibus, quibus affert folliculitem depilantem.

#### Sect. 2. Ectothrix Sabouraud.

4. Trichophyton felinum R. Blanchard, Guég. l. c. p. 139, f. 5. 8269

Hab. in canibus, equis, bovibus etc., quibus affert tineam fugacem et in hominibus in quibus dermatites alias generat. —

Varietas Sporotrichi vellerei Sacc. et Speg. — Syll. IV, p. 101.

#### Sect. 3. Endo-ectothrix Sabouraud.

5. Trichophyton equinum Gedölst, Guég. l. c. p. 140. 8270 Hab, in equis, quibus herpetem inducit.

6. Trichophyton mentagrophytes (Robin) Sab., Sporotrichum menta-8271 grophytes (Rob.) Sacc. — Syll. IV, p. 100.

7. Trichophyton Megnini R. Blanchard, Guég. l. c. p. 140. 8272

Hab. in Gallinaceis quibus affert gravem trichophytiasim
et hominibus in quibus eruptionem quamdam cutis causat.

8. Trichophyton depilans Mégnin, Guég. l. c. p. 140. 8278

Hab in vitulis quibus affert trichophytiasim peculiarem nec
non in equis in quibus causat tineam depilantem et hominibus
ad quos adducit epidermatitem quandam.

#### Sect. 4. Faviformia.

9. Trichophyton faviforme Bodin, Guég. l. c. p. 141, f. 6. 8274

Hab. in Equo Asino cui inducit tineam tonsurantem typi

Ectothrix. — Adsunt formæ speciales in vitulis et in Fringilla canaria.

MICROSPORON Gruby em. Bodin, Guég. l. c. p. 143.

Microsporon Audouini Gruby, Guég. l. c. p. 143, fig. 7, Sporotri-8275
 chum Audouini (Gruby) Sacc. — Syll. IV, p. 101, Trichophyton
 decalvans Malm., Trichophyton microsporum Sab., Martensella mi crospora Vuill.

2. Microsporon canis Bodin, Guég. l. c. p. 144, f. 8. a. 8276

Hab. in cane, cui tineam quamdam inducit.

3. Microsporon equinum Bodin, Guég. l. c. p. 144, f. 8 b, c, d, Tri-8277 chophyton minimum Le Calve et Malherbe.

Hab. in equis junioribus, mulis, canibus, quibus herpetem contagiosum affert.

4. Microsporon Muris Gluge et d'Udekem, Guég. l. c. p. 145.

\*\*Rab.\* in Muris sp. cui pilos et oculum destruxit.

8278

Microsporon anomeon Vidal, Guég. l. c. p. 145. Microsporon dispar 8279
 Vidal.

Hab. in homine, cui, ut videtur, affert pityriasim circinatam et marginatam.

#### EPIDERMOPHYTON Megnin, Guég. l. c. p. 145.

1. Epidermophyton gallinæ Megnin, Guég. l. c. pag. 145, fig. 9, Lo. 8280 phophyton gallinæ Matruchot et Dassonville.

Hab. in gallina, cui favum cristæ inducit.

#### ACHORION Lebert, Guég. l. c. p. 145.

1. Achorion Schenleinii Remak, Guég. l. c. p. 145, f. 10, Oidium 8281

Schenleinii Lebert, Oidium porriginis Mont., Oospora porriginis

(Mont.) Sacc. — Syll. IV, p. 15.

2. Achorion Quinckeanum W. Zonf Guég. l. c. p. 147

2. Achorion Quinckeanum W. Zopf, Guég. l. c. p. 147.

Hab. in infantibus quibus favum affert.

3. Achorion Arloingi Busquet, Guég. l. c. p. 147.

Hab. in homine in quo generat eruptionem marginatam trichophytiformem.

4. Achorion? repens (Eklund) Guég. l. c. p. 147, Lepocolla repens 8284 Eklund, Epidermophyton Lang, nec Mégnin.

8283

Hab. in homine in quo, ut videtur, psoriasim generat.

## TRICHOSPORUM Behrend, Guég. l, c. p. 241.

1. Trichosporum giganteum Behrend, Guég. l. c. p. 241. 8285

Hab. in homine, in cujus capillitio generat sic dictam Piedra

Columbia.

Columbiæ.

2. Trichosporum ovoides Behrend, Guég. l. c. p. 241.

8286

Hab. in homine in cujus barba infectionem inducit.

3. Trichosporum ovale Unna, Guég. l. c. p. 242. 8287

Hab. in barba hominis.

4. Trichospornm Beigelii (Rabenh.) Vuill., Guég. l. c. p. 242, fig. 2, 8288 Pleurococcus Beigelii (Rabenh., Sclerotium Beigelianum Hallier, Chlamydatomus Beigelii (Rabenh.) Trev. — Syll. VII, p. 1042.

### Fam. 2. Dematiaceae Fr.

#### Sect. 1. Amerosporæ.

Subsect. 1. Homochromæ.

CONIOSPORIUM Link — Syll. IV p. 238, X p. 569, XI p. 610, XIV p. 1068, XVI p. 1050, XVIII p. 563.

Coniosporium argentinense Speg., Myc. Argent. V p. 430, in Anal. 8289
 Mus. Nac. Buenos Aires XX (1910). — Pulvinulis repando-sub-orbicularibus, 2-7 mm. diam., compactiusculis, e nigro obsoletissime cærulescentibus; conidiis conglobatis sæpius subglobosis, 6-8 μ. diam., levibus non v. grosse 1-guttulatis, atro-fuligineis.

Hab. ad ramos dejectos putrescentes Anonæ Cherimoliæ

in hortis Tucuman Argentina Amer. austr.

2. Coniosporium Albizziæ P. Henn., in Fl. du Bas- et Moy.-Congo, 8290 Ann. Mus. du Congo, II, fasc. II (1907) p. 103. — Maculis flavidis v. brunneolis rotundatis; acervulis hypophyllis pulvinatis, sæpe rugosis, atris c. 1-2 mm. diam., sæpe confluentibus; conidiis subglobosis, guttulatis, atris, 5-6,5 μ. diam,

Hab. in foliis Albizziæ (A. fastigiatæ proxima), Gongolo

Congo (VANDERYST).

3. Coniosporium limoniforme Syd., Ann. Mycol. VI (1908) p. 484. — 8291 Acervulis amphigenis, minutissimis, subinde aggregatis et confluentibus, superficialibus, atris; conidiis limoniformibus, continuis, levibus, atro-brunneis, 28-38 × 18-24.

Hab. in foliis vivis Rosæ spec. cultæ, Salt Lake City, Utah Amer. bor. (A. O. Garrett). — Affine videtur Coniosporio nitido Karst.

4. Coniosporium Zahnii P. Magn., Abh. Naturh. Ges. Nürnb. XVI 8292 (1906) p. 79, tab. 27. — Cæspitulis punctiformibus, sparsis, hypophyllis, nigris; conidiis ex hyphis (conidiophoris) brevissimis pleurogene orientibus, depressis, latere latiore varie convexis et ovoideis, utrinque leviter acutatis, levibus, basi apiculatis, brunneis, 16.6 ≥ 10-7.

Hab in pag. inf. foliorum viventium Comari palustris pr. Nürnberg Germaniæ (ZAHN).

5. Coniosporium toruloides Sacc., in Ann. Mycol. X (1912) p. 315. 8298 — Effusum, maculiforme, nigrum, tenuiter pulveraceum; conidiis globosis, exiguis, raro vix angulosis, atro-fuligineis, 5 μ. diam., e latere leviter compressis, 3,5-4 μ. cr.; conidiophoris brevissimis papilliformibus, hyalinis.

Hab. in caulibus dejectis putrescentibus Sedi sp., Blue Mountain Lake, Amer. bor. (Doct. et Domina FARMAN). — Habitus Torulæ herbarum.

6. Coniosporium lavallense Sacc., in Ann. Mycol. X (1912) p. 314. 8294 — Late effusum, tenuiter pulveraceum, fuligineo-nigricans; conidiis globosis 8-8,5 μ. diam., levibus, rarius subangulosis v. breve obovatis, 11 × 8, olivaceo-fuligineis v. viridulo-atris, guttulis 1-2 sæpe angulosis fætis; conidiophoris brevissimis, cylindraceis, 2-2,5 × 1,5, subhyalinis.

Hab. ad cortices levigatos truncorum Coniferarum in fodina anthracitica Genest pr. Laval Gallie (P. CORFEC). — Rarissime conidia bina superimposita observavi.

7. Coniosporium musicola Speg., Myc. Arg. V, p. 430, in An. Mus. 8295 Nac. Buenos Aires XX (1910). — Pulvinulis superficialibus 1-1,5 mm. diam. plus minusve dense gregariis sæpe seriatim confluentibus, ambitu pulverulento-evanidis; conidiis parvis ellipsoideis utrinque obtusis 5-6 ≥ 3, fusco-fuligineis, subopacis levibus.

Hab. ad folia et rhachides putrescentes Musæ sapientum in hortis Oran Argentina Amer. austr.

8. Coniosporium Chusqueæ Speg., Fungi Chilenses (1910) pag. 182, 8296 ? Con. inquinans Dur. et Montgn. — Acervulis linearibus erumpentibus pulverulentis nigerrimis; conidiis subglobosis 18-20  $\mu$ . diam., levibus subopacis fuligineis.

Hab. in culmis emortuis Chusqueæ Quilæ, Parque Cousiño de Lota Chile Amer. austr.

9. Coniosporium Bizzozerianum L. Gaja, Fl. micol. prov. Padova, p. 26 8297 (1912) (sunto litogr.). — Acervulis gregariis laxe per epidermidem effusis et ad rimas petioli copiosioribus, atris, tenellis, 200-250 μ. diam.; conidiis subellipsoideis, ad marginem dense nigricantibus, intus fulvo-atris et granulosis, et ad centrum areola circulari atra præditis, 5-5¹/₂ × 4-5; conidiophoris subhyalinis vix conspicuis.

Hab. in petiolis Chamæropis humilis, in Viridario Convictus Universitariorum, Patavii, Ital. bor.

10. Coniosporium Hariotianum Sacc., in Ann. Mycol. IX (1911) p. 255. 8298 — Cæspitulis punctiformibus, superficialibus, subsparsis, nigris, 150-200 μ. diam.; conidiis luce directa nitidis, e sphærico obtuse angulosis, atro-fuligineis, 10-11 μ. diam., levibus, basi initio minutissime apiculatis, sessilibus.

Hab. in foliis emortuis Caricis glauce circa Parisios Galliæ (P. Hariot). — Affine Coniosp. Arundinis sed cespituli minuti, vix inquinantes, conidia distinctius angulosa, e latere vix depressa.

11. Coniosporium Caricis-montanæ Lindau, Rabenh. Krypt.-Fl. ed. II 8299 VIII (1906) Hyphom. p. 555. — Cæspitulis subsparsis, minutissimis, usque ad ½ mm. diam, subrotundis v. oblongis, primo firmulis, dein subpulveraceis, nigris, omnino superficialibus; hyphis mycelii non visis; conidiis dense confertis, ellipsoideis, utrinque rotundatis, diaphane brunneis, plerumque grosse 1-guttatis, 9,5-11,5 × 4-4,5.

Hab. in foliis emortuis Caricis montanæ pr. Viborg Jutlandiæ (Lind). — Præcipue conidiis ellipsoideis ab affinibus dignoscenda species.

12. Coniosporium triticinum L. Gaja, Flora micol. prov. Padova, p. 26 8800 (1912) (sunto litogr.). — Acervulis dense gregariis, irregularibus, atris, ad superficiem culmorum et vaginarum sparsis, 250-300 μ. diam. circiter; conidiis inæquilateralibus fere semilunaribus, nigerrimis, ad marginem intensius coloratis, 16-20 × 7 ½-9; conidiophoris brevibus, pallidis.

Hab. il culmis emortuis Tritici vulgaris, in viridario Convictus Universitariorum, Patavii, Ital. bor.

13. Coniosporium Arundinis Corda — Syll. IV, p. 243 — var. Am-8301 pelodesmi R. Maire, Bull. Soc. Myc. de Fr. t. XXI (1905) fasc. 4, pag. 214. — A typo distinguitur conidiis exquisite lenticularibus, ambitu marginulatis, minoribus, nempe 6-8 × 5-6, e latere 4,5-5 μ., rarissime irregularibus et usque ad 10-11 μ. longis.

Hab. in culmis Ampelodesmi tenacis, Miramar in insulis Balearibus.

14. Coniosporium Ammophilæ Jaap, Weit. Beit. Pilzfl. nordfries. Ins. 8302
Schrf. Naturw. Ver. Schlesw.-Holst., Bd. XIV, Heft I, p. 32 (1907).
— Cæspitulis striæformibus, nervis culmi paralellis, nigris; conidiophoris oblongo-cylindraceis, curvulis, dilute olivaceis, septatis, usque ad 14 ≈ 3,5; conidiis ambitu subrotundis v. leviter angulosis,

lenticulari-depressis, viridulo-brunneis, sæpe grosse centrali-1-guttatis, 5-7 µ. diam.

Hab. in culmis vetustis Ammophilæ balticæ pr. Wittdün supra Amrum in ins. Frisiæ.

15. Coniosporium punctiforme Sacc., in Ann. Myc. X, p. 314 (1912). — 8308 Late et dense gregarium, nigrum, tenuiter pulveraceum; cæspitulis perexiguis, 100-120 μ. diam., punctiformibus, discretis, rarius confluentibus, in areis arescentibus brunneolis foliorum plerumque hypophyllis; conidiis globosis, levibus, fuligineis, 8-9 μ. diam., rarius 9 × 8, e latere subcompressis, siccis valde compressis; conidiophoris brevissimis v. obsoletis.

Hab. in foliis languidis Phyllostachydis puberulæ, Prov. Izu Japoniæ (J. Мічакь, communic. К. Нава). — Affine Coniosp. Bambusæ, sed habitu punctiformi imprimis diversum.

16. Coniosporium bambusicola P. Henn., Engl. Jahrb. XXXVIII 8804 (1905) p. 118. — Acervulis amphigenis, rotundato- v. oblongo-pulvinatis, atris, c. 300-500 μ. diam.; hyphis brevibus, fuscidulis; conidiis globosis v. late ellipsoideis, atris, levibus, 10-20 μ. diam.

Hab. in foliis Bambusæ, Sigital Ost Usambara Africæ (ZIM-MERMANN).

17. Coniosporium micans L. Gaja, Flora micol. prov. Padova, p. 27 8805 (1912) (sunto lit.). — Acervulis dense gregariis, fuligineis, per vaginas culmorum granulatim effusis et ad nodos copiosioribus; conidiis perfecte sphæricis, 18-20 μ. diam., levibus, nigerrimis, luce directa micantibus, luce reflexa homogenee atris; conidiophoris cylindraceis, minutissimis, subfuscis.

Hab. ad culmos Gynerii argentei in viridario Convictus Universitariorum Patavii, Ital. bor.

18. Coniosporium filicinum Rostr., in Gartn.-Tid. pag. 231 (1898), 8306 Plantepathol. pag. 605, Lindau Deutsch. Krypt. Fl. Pilze VIII, pag. 553. — Maculis minutis, brunneis, transversis, nervisequiis; conidiis effusis, copiosis, unicellularibus, ellipsoideis v. globosis, 8-10 × 5-6 vel 6-8 μ. diam., brunneis.

Hab. in frondibus Pteridis creticæ, quam lædit, in calidariis Daniæ.

19. Coniosporium papyricola Lindau, Rabenh. Krypt.-Fl. ed. II v. VIII 8307 (1906) Hyphomyc. p. 564. — Mycelio ex hyphis sparsis, septatis, repentibus, fumoso-brunneis, diaphanis, 4 μ. cr. formato; conidiophoris e mycelio oriundis, brevibus, 2,5 μ. cr., hyalinis, apice monosporis; conidiis copiosis, stratum pulveraceum, effusum piceo-

nigrum formantibus, ellipsoideis v. ovoideis, nigricantibus, impellucidis, superficie granulosis,  $10-11.5 \times 6-7.5$ .

Hab. in charta putrescente, Sachsenwald pr. Hamburg Germaniæ (JAAP).

# FUSELLA Sacc. — Syll. IV p. 246.

1. Fusella Typhæ Lindau, in Rabenh. Krypt. Fl. Ed. II, Hyphom. 8808 (1906) VIII, p. 566, c. ic. — Cæspitulis sparsis, elongatis, foliorum nervis parallelis, 0,5-1 mm. long., firmis, nigris, primo epidermide velatis dein erumpenti-liberis, hypostromate viridi-brunneo suffultis; conidiis fusoideis, olivaceis, 9-15,5, plerumque 14-15 × 3,5-4, sæpe guttulatis, semipellucidis.

Hab. in foliis emortuis Typhæ latifoliæ, Eschenburg pr. Hamburg (JAAP).

### THIELAVIOPSIS Went. — Syll. XI, p. 612, XVIII p. 567.

Thielaviopsis paradoxa (de Seyn.) v. Höhn. Fragm. z. Myk. VI, 8809 p. 169 (1909). — Verisimillime ejus synonyma sunt: Endoconidium fragrans Delacr. et Catenularia echinata Wakker, observante von Höhn. l. c.

**TORULA** Pers. — Syll. IV p. 247, X p. 572, XI p. 610, XIV p. 1069, XVI p. 1051, XVIII p. 565.

1. Torula monilioides Corda — Syll. IV, pag. 254 — var. globosa 8810 Ferraris Malpighia XVI (1902) p. 40. — Cæspitulis irregularibus, nigricantibus, pulveraceis; hyphis brevibus; conidiis globosis, 4-6 µ. diam., intense brunneis, moniliformiter dispositis, in catenulas breves secedentibus.

Hab. in ligno putri pr. Crescentino Pedemontii.

2. Torula conglutinata Corda — Syll. IV, p. 262 — var. citricola 8311 Saccardo, Not. Myc. IX, Ann. Myc. V (1907) p. 179. — Cæspitulis hypophyllis, minutis, brunneolis; hyphis conidiophoris simplicibus, 40 × 4, assurgentibus, subhyalinis; conidiis globulosis, catenulatis, 8 × 7, distincte verruculosis, fusco-vinosis.

Hab. in foliis dejectis Citri Limonum ex agro Tarvisino a
cl. prof. Benzi missis et diu loco udo servatis Patavii, Ital. bor.
Species est ex subgen. Trachytora.

3. Torula Elasticæ (Koord.) Sacc. et Trott., Catenularia Elasticæ 8812 Koord., Botan. Unters. Java (1907) p. 230, f. 41. — Hyphis erectis, fuscis, effusis, apice conidia concatenata gerentibus; conidis

ovoideo-oblongis v. oblongis, fumigatis, continuis, utrinque rotundatis, levibus,  $5-5,5 \times 3,5-4$ .

Hab. in foliis putrescentibus Fici elasticæ, in Horto Botanico Dahlem-Berlin ex planta javanica, martio 1907 (Koorders).

— An status conidicus Chætomii Kunzeani Zopf? — Videtur potius Torulæ sp. quam Catenularia.

4. Torula Alni Lindau, in Rabenh. Krypt. Fl. Ed. II Hyphom. VIII 8313 (1906) p. 585. — Cæspitulis minutis, firmulis, brunneo-atris, discretis rarius confluentibus, usque ad 1 mm. diam., pulvinatis; mycelio hyalino v. brunneolo, sparso, septato, apicibus in catenulas brunneas irregulariter abeunte; conidiis primo in catenulas junctis dein singulatim v. per parvas series secedentibus, brunneis, forma valde ludibundis, globosis, doliiformibus, oblongis, ovoideis, subinde quoque angulosis, 4-8 μ. altis, 5-9 μ. latis.

Hab. in ramulis siccis Alni glutinos æ ad Grunewaldsee pr. Berlin (Lindau). — Conidia interdum lateraliter germinant.

5. Torula grumulosa Lindau, in Rabenh. Krypt. Fl. Ed. II, Hypho-8314 myc. VIII (1906) p. 579. — Effusa, nigrovirens, granuloso-pulverulenta, partim crassiuscule stratosa; mycelio viridi-brunneolo, septato, ramoso, 4 μ. cr., hinc inde pleurogene conidia immediate proferente; conidiis 2,3,4 v. raro pluribus in colonias connexis, viridulo-brunneis, diaphanis, grosse 1-guttatis, rarius minute pluriguttulatis, globosis, 4 μ. diam., v. oblongis, 5,5 μ. longis, sæpe 1-septatis.

Hab. in resina Abietis excelsæ pr. Putlitz, Brandenburg (JAAP). — Vegetatio potius Saccharomycetum, hinc species incertæ sedis.

6. Torula Jaapii Lindau, in Rabenh. Kryptog. Fl. Ed. II Hyphorm- 8315 mic. (1906) p. 577. — Late effusa, indeterminata, velutina, nigra, viridulo-tincta; hyphis mycelii simpliciter ramosis, repentibus et ascendentibus, apice catenulas gerentibus; conidiis breviter seriatis, singulatim rarius binatim v. ternatim secedentibus, levibus, nigris, impellucidis, globosis 7,5-8,5 μ. diam., vel ovoideis et tunc binatis, utrinque, imprimis basi, truncatis ibique stipitiformi-angustatis, 15-19 \* 7,5-8.

Hab. ad caudices putres Pini silvestris pr. Triglitz, Brandenburg (JAAP).

7. Torula resinæ Lindau, in Rabenh. Kryptog. Fl. Ed. II, Hypho-8316 myc. VIII (1906) p. 578 et in Jaap. Beitr. Pilzfl. d. Schw., Ann. Myc.
v. V (1907) p. 270. — Cæspitulis crassiusculis, irregularibus, late

effusis, e lanoso pulverulentis, atro-viridi-brunneis subinde nigricantibus, hyphis sterilibus levibus subsimplicibus parce sinuosis, septatis, viridi-brunneis, diaphanis, 3,5-4,5  $\mu$ . cr., membrana duplici crassiuscula; hyphis sursum cuboideo-articulatis, apicem versus sphæroideo-articulatis et in catenulas breves abeuntibus; conidiis maturis globosis, levibus, saturate viridulo-brunneis, 4  $\mu$ . diam., sæpius guttulatis.

Hab. in resina Pinorum pr. Chamounix (JAAP) et pr. Valpelline Ital. bor. (TRAVERSO).

8. Torula proximella Sace. in Malbr. et Letendr. Champ. Norm. IV 8317 p. 67, t. I f. 7 (in Bull. Soc. Amis Sc. Nat. Rouen 1887). — Maculis effusis, nigro-olivaceis; conidiis 6-7 × 2, oblongo-ellipsoideis, medio non constrictis, levibus, non guttulatis, breviter catenulatis.

Hab. ad ligna et truncos putrescentes, Normandie Galliæ. — Ab affinis Tor. antennata imprimis conidiis minoribus, medio non constrictis etc. dignoscitur.

9. Torula palmigena Bubák, Növényt. Közlemen. VI, Hefl 4, (1907) 8318 Extr. p. 41. — Maculis valde elongatis, angustis, alutaceis, utrinque conspicuis; mycelio superficiali; cæspitulis valde approximatis, longe seriatis, theobromino-brunneis, amphigenis; conidiophoris conidium subæquantibus, brunneis, sæpe curvulis 4 μ. cr.; conidiis catenulatis, ellipsoideis v. ovoideis, v. oblongis, grosse guttatis, 9-12 × 4,5-6,5.

Hab. in foliis vivis Phænicis dactyliferæ, socia Graphiola, in horto botanico Budapest.

10. Torula fumaginea Speg., Myc. Argent. V, p. 431, in Anal. Mus. 8819 Nac. Buenos Aires XX (1910) — Biophila plerumque epiphylla, minute cæspitulosa, atra, laxissime gregaria; catenulis ex articulis 5-6, infimo maximo (15-20 μ. diam.) supremo minimo (5-6 μ. diam.) globosis, minute papillulatis vix pellucidis efformatis.

Hab. ad folia viva Zuccagniæ punctatæ in aridis Cacheuta prope Mendoza Argentina Amer. austr. — Species potius ad Fumaginem quam ad Torulam pertinens.

11. Torula pulviniformis H. et P. Syd., Ann. Mycol. IV (1906) 8320 p. 345. — Cæspitulis sparsis, sæpius solitariis, hemisphærico-pulviniformibus, 1-2 mm. diam., pulverulentis, atris; hyphis filiformibus, circ. 200 μ. longis. 4 μ. crassis, obscure septatis, demum distincte septatis, crassioribus et in conidia se mutantibus, moniliformibus; conidiis (articulis) continuis v. binis diutius cohærenti-

bus, globosis v. subglobosis, fusco-brunneis, distincte verrucosis, 7-10  $\mu$ . diam.

Hab. in foliis putridis Bromeliaceæ cujusdam, Sao Leopoldo, Rio Grande do Sul Brasiliæ (J. Rick). — Ad subgen. Trachytora Sacc. pertinet.

12. Torula culmicola Corda, in Sturm. Deutschl. Fl. III fasc. 8, p. 93, 8321 t. 43. (1829) — Effusa, atra, 5-10 mm. lata; hyphis sterilibus repentibus, fertilibus mox in catenulas breves conidiorum subrectas abenutibus; conidiis in quaque catenula 4-8 facile secedentibus, globosis, brunneis, subdiaphanis.

Hab. in calamis putrescentibus Typhæ latifoliæ pr. Okoriz Bohemiæ.

13. Torula verrucosa Vouaux in Bouly de Lesd., Bull. Soc. Bot. 8522 France 1907 (1908) LIV, p. 697. — Cæspitulis mycelii basi immersis supra emergentibus subsphæroideis, nigris, 70–150 μ. diam.; conidiis subellipsoideis, apice rotundatis v. subtruncatulis, simplicibus, raro bilocularibus, basilaribus, 4-6 × 2,5-3, apicalibus 8-9 × 4-5, obscure brunneis, verrucosis, 4-12 catenulatis, catenulis inter se confertis, stratum continuum seu parietem simulantibus.

Hab. in apotheciis Lecanoræ subfuscæ pr. Versailles Galliæ. — An Speirce affinis?

14. Torula Lichenopsis v. Höhnel, Ergebn. Bot. Exp. Siidbras. 8323 1901 Denk. K. Ak. d. Wiss. Wien, Bd. LXXXIII, (1907) Extr. p. 36. — Lichenicola; cæspitulis atro-brunneis, applanatis, irregulariter rotundatis, <sup>1</sup>/<sub>3</sub> mm. lat., paucis v. plurimis linea nigra tortuosa acute limitatis; hyphis brevibus, brunneis, irregulariter ramosis, 2-3 μ. cr.; conidiis breviter catenulatis, brunneis, versiformibus, subrotundis v. ovoideis v. piriformibus oblongisve 9 × 3-6, episporio minute obtuseque verruculoso v. levi.

Hab. in thallo lichenis crustacei cujusdam, Sao Paulo Brasiliæ.

15. Torula fusca (Bon.) Sacc. — Syll. IV p. 260. — *Oospora fusca* 8824 (Bon.) Grove, Journ. of Bot. XXXIII (1885) p. 163, t. 257, f. 1. Effusa, pulverulenta, dilute brunnea; catenulis initio erectis, mox divaricatis et intricatis; conidiis in quaque catena numercsis, pallide ochraceis, 6-8 × 3,5-4, subinde 10 × 5.

Hab. in Bulgaria inquinante deliquescente in Germania et Anglia.

16. Torula Bantiana Sacc. in Ann. Mycol. X (1912) p. 320. — Dense 8325 cæspitosa, nigra, subvelutina; conidiophoris ex mycelio hypostro-

matico, brevi, celluloso ascendentibus, fasciculatis, cylindraceis, simplicibus, subrectis, variæ longitudinis, plerumque 15-80  $\mu$ . long., raro usque ad 60  $\mu$ . (ex cultura), 5-5,5  $\mu$ . cr., deorsum sensim leviter crassioribus, continuis, v. (longioribus) parce septatis, apice truncatis sporigeris, sub vitro atro-olivaceis; conidiis longe et sat persistenter catenulatis (in quaque catenula 5-10), concoloribus, oblongo-ellipsoideis, 8-11  $\approx$  5, levibus, intus granulosis, summis junioribus et pallidioribus.

Hab. in tumore (granulomate) cerebrali, habitu melanotico, fe minæ, causa ejusdem tumoris emortuæ, Florentiæ, hieme 1912.

— Invenit, culturæ subjecit et clinice scrutatus est ill. doct. G. Banti, professor florentinus. — Fungillus bene sed lente evolvitur temperie a 20 C ad 37 C; libentius mediis acidis, glycosio præsente v. absente. — Valde affinis cascicolæ Torulæ nigræ (Burri et Staub) Sacc. et Trav. Syll. fung. XX, p. 964 seu Monilia nigra Burri et Staub¹), quæ vero colore nigro et conidiophoris simplicibus non Moniliæ species esse potest. Cum gen. Catenularia sensu Doct. K Saito²) satis convenit, sed homonymon Grove³) certe diversum. Pro tempore aptius ut Torulæ species sumenda.

- 17. Torula simplex (Lindn.) Sacc. Ita potius vocandum est Pe-8826 nicillium simplex Lindner Syll. XVIII p. 518 seu Catenularia fuliginea Saito; cfr. Lindau Krypt. Fl., Pilze IX p. 787. Ob colorem fuligineum non Oosporæ adscribenda species, ut l. c. dubitanter proposueram. In caseo in Germania et Japonia.
- 18. Torula nigra (Burri et Staub) Sacc. et Trav. Syll. fung. 8827 XX p. 964, Monilia nigra Burri et Staub in Landw. Jahrb. der Schweiz (1909) p. 487, t. I-II (absque diagnosi). Effusa, maculiformis, nigra; hyphis vage et parce ramosis, filiformibus, inæqualibus, subcontinuis, fuligineis, hinc inde conidiophoris; conidiis in catenulas breves dispositis et facile dilabentibus, late ellipsoideis, utrinque rotundatis, atro-fuligineis, levibus, plerumque 1-guttulatis, 12-13 × 6-8.

Hab. in cortice casei Emmentaler dicti, Bern Helvetiæ.

<sup>1)</sup> In Landwirtschaftl. Jahrb. der Schweiz, 1909, p. 487 t. I-II.

<sup>2)</sup> In Journ. Coll. Science Univers. Tokyo XVIII (1904) p. 51, t. II, f. 4.

<sup>3)</sup> In Syll. fungorum IV (1886) p. 303.

Maculæ usque ad 2 cm. latæ. Species caseum corrumpit. Cfr. fusiorem expositionem cll. Burri et Staub l. c.

19. Torula Sacchari Corda Icon. fung. IV, p. 23, t. VI, f. 7 (1840). — 8828 Mycelio floccoso, repente, bombycino v. tenuissimo, albo v. flavomaculato; hyphis ramosis, repentibus, continuis; conidiophoris cylindraceis brevibus, albis, continuis, simplicibus, conidiis globosis brunneis (ochraceo-fuscis), subæqualibus, 2,7-2,9 μ. diam.

Hab. in formis (panibus) saccharinis in officinis h. e. saccharificiis in Bohemia. — Saccharum maxime vexat et corrumpit.

- 20. Torula brevis (Bon.) Sacc. et Trav. Syll. XX p. 962, Xenodo-8829 chus brevis Bonord. Handb. Myk. t. 8, p. 174 (1851). In textu deest nomen, sed cum auctor, p. 49, ad gen. Xenodochum referat Torulam abbreviatam Corda Syll. IV p. 256 verisimiliter ex errore in tab. scripsit brevis pro abbreviatus. Icones Cord. et Bon. conveniunt, postremus vero figurat quoque hyphas steriles repentes ramulosas hyalinas et conidiophora brevissima, conida globosa binatim usque ad quinatim catenulata.
- 21. Torula fenestralis (Link) Schwabe, Linnæa XV (1841) p. 279, 8830 t. I, f. A. ? Byssocladium fenestrale (Link) Ditm. Hyphis repentibus sterilibus vitro adnatis hyalinis, septatis, parce ramosis; conidiis in catenulas longiusculas dispositis, globosis v. subglobosis, intus granulosis, fuligineis, 12-13 μ. diam. (ex icone).

Hab. in vitris cubiculorum in Germania. — Hyphomyces radiosus, quem ipse observavi in vitris fenestrarum erat forma abnormis Aspergilli grisei. Cfr. Syll. IV p. 65. Verisimiliter in vitris udis plures occurrunt fungillorum species habitu simili.

22. Torula saccharina Heald et Pool, 21 Ann. Rep. Nebraska Agric. 8331 Exp. Stat. (1908) p. 54, c. 7 icon.

Hab. in syrupo Aceris saccharini, Nebraska Amer. bor.
An Oospora? — Diagnosim non vidi.

- HEMISPORA Vuill. Bull. Sacc. Mycol. de Fr. XXII (1906) p. 128 (Etym. hemi dimidium et spora). Mycelium copiosum, tenue, septatum, ramosum, hyalinum; hyphæ fertiles prope basim ramosæ; ramuli conidiophori vesiculâ anulo brunneo rigidulo basi cinctâ ibique constrictâ terminati; vesicula in seriem segmentorum sporiformium sensim mutata, interdum ramulum alterum conidiophorum prolificans.
- 1. Hemispora stellata Vuill. l. c. p. 129, tab. VII. Subiculis my- 8882 celii disciformibus, albis, 0,5-2,5 mm. diam., sessilibus; conidio-

phoris supra discum in lineolas radiatas v. stellatas brunneas disposits; conidiis 4–8 superpositis, subsphærico-cuboideis, 2,6–3,5 μ. diam., membrana externa verruculosa, fuliginea, parietibus contiguis levibus.

Hab. sub crusta mycelica Aspergilli repentis culti in Gallia.

GLIOMASTIX Guéguen, Bull. Soc. Mycol. Fr. XXI (1905) pag. 240, t. XIV et XV, Torula Auct. ex parte (Etym. gloios viscosus et mastix scutica). — Hyphæ steriles, decumbentes; fertiles breves simplices vel subsimplices. Conidia mucilaginea, catenata, mox terminaliter conglobata, initio tubulo brunneo e membrana conidiophori formato innata, mox ex anulari segmentatione tubulo denudata, inde ob disjunctores toriformes inter conida interjectos secedentia.

1. Gliomastix chartarum (Corda) Guég. l. c. p. 240, t. XIV et XV, Torula 8333 chartarum Corda — Syll. IV p. 261. — Mycelio repente umbrino, 3-3,5 μ. diam., parce septato, ramoso, simplici v. in fasciculos coalescente; conidiophoris erectis simplicibus v. parce æqualiter ramosis, 20-30 ≈ 3-4, basim versus septatis, apice tenuatis sæpeque verruculosis; conidiis numerosis in catenam longam flexuosam terminaliter conglobatam seriatis, ovoideis, 2,4-3,6 ≈ 2,3-2,5 hyalinis, levibus, ocellatis, mucilagineis, endogenis, mox ex segmentatione anulari tubuli liberatis, brunneis.

 $\it Hab.$  in charta uda v. putrescente in Bohemia, Germania, Gallia, Italia.

GYROCERAS Corda. — Syll. IV p. 266.

1. Gyroceras saxonicum Lindau, Rabenh. Kryptog. Fl. Ed. II Hy-8834 phom. VIII (1906) p. 606. — Cæspitulis punctiformibus, discretis, e puncto communi radiantibus, sub vitro velutinis, griseo-brunneis, <sup>1</sup>/<sub>40</sub>-<sup>1</sup>/<sub>3</sub> mm. diam., ex conidiophoris tantum formatis; conidiophoris in centro cæspituli parce ramosis v. simplicibus, raro et remote septatis, hyalinis, 3,5-4 μ. cr., superficialiter vero catenulas conidiorum 200-300 μ. longas, rectas v. curvulas, simplices v. ramosas gerentibus; conidiis flavo-brunneis sub vitro fere hyalinis, subovoideis, 7,5 μ. latis, subinde paullo latioribus quam altis, diu connexis, rarius secedentibus rotundioribus, primitus ex cellulis mycelialibus mutatis orientibus.

Hab. in caulibus Lythri Salicariæ pr. Naundorf Saxoniæ (Schade). — Ex ipso auctore species in genere dubia.

2. Gyroceras divergens Peck, Bull. Torr. Bot. Cl. XXXVI (1909) 8885

p. 155. – Maculis in foliorum facie superiore griseis, facie inferiore purpureo-brunneis, sæpe confluentibus; hyphis hypophyllis, sterilibus repentibus, ramosis, vulgo brevibus, hyalinis v. pallidis, fertilibus suberectis, multiseptatis,  $20\text{-}80 \approx 6\text{-}10$ , areas tomentosas brunneas formantibus, loculis 4-8  $\mu$ . longis 6-10  $\mu$ . latis, paucis septo longitudinali aliquando divisis.

Hab in foliis vivis Celtidis occidentalis, Batesville Arkansas Amer. bor. (E. Bartholomew). — A Gyr. Celtidis (Biv.) M. et C. omnino diversa species.

**HORMISCIUM** Kunze — Syll. IV p. 263, X p. 575, XIV p. 1070, XVIII p. 567.

Hormiscium Leonardianum L. Gaja, Flora Mycol. prov. Padova, 8336 p. 27 (sunto litog). (1912) — Cæspitulis nigerrimis, pulverulentis, tenerrimis, per ramulos et caules late diffusis; hyphis cylindraceis, 2 μ. latis, sinuosis, reptantibus; conidiophoris subhyalinis, brevissimis, 2-3 μ. longis, subcylindraceis, ad apicem incrassatis et obscurioribus; conidiis catenulatis fere perfecte globosis, fuscis, dense hispidulis, vix secedentibus, 5-6 μ.; catenulis rarius ramosis, longitudine variis.

Hab. in ramulis Celosiæ cristatæ in viridario Convictus Universitariorum, Patavii Ital. bor. — Affine est Hormiscio stilbosporo, a quo præcipue differt forma et ornamento conidiorum.

2. Hormiscium Tiliæ Karst., Acta Soc. pro Faun. et Fl. fenn. XXVII, 8387 4 (1905) p. 11. — Cæspitulis erumpentibus superficialibus, pulvinatis, atris v. fusco-atris, exiguis; catenulis erectis, simplicibus, fasciculatis, rigidis, semipellucidis (sub lente), usque ad 100  $\mu$ . long., articulis plerumque 3-4, non secedentibus, 8-25  $\approx$  8.

Hab. in ramulis siccis Tiliæ cordatæ in regione Aboënsi, Runsala, Fennia.

3. Hormiscium gelatinosum Hedgeock, 17th Ann. Rep. Miss. bot. 8338 Gard. St. Louis (1906) p. 101, tab. 11, fig. 4-8. — Mycelio incarnato dein brunneo effuso; hyphis catenulatis, toruloideis, forma vere ludibunda, nunc cylindraceis, subhyalinis, 2-8 μ. diam. modo ovato-subrotundis, atro-olivaceis, 5-10 μ. diam.; conidiis typicis, vix secedentibus, modo globoso-oblongis v. cuboideo-oblongis, 10-14 × 5-6, modo subglobosis, 7-12 μ. diam.

Hab. in lignis denigratis Coniferarum, Ulmi etc. in Amer. borealis.

4. Hormiscium Handelii Bubák in Handel-Mazzetti, Bot. Reise Pont. 8839

Randgeb. in Ann. Naturhist. Hofmus. Wien XXIII (1909) p. 106, t. V, f. 4, a-d. — Cæspitulis atris, opacis, crassis, late effusis, superficie inæquali, pulveraceis; catenis e cortice erumpentibus, repentibus v. ascendentibus, sæpius ramosis; conidiis globosis, utrinque parum applanatis, magnitudine varia, usque ad 40  $\mu$ . diam., tunica crassa, obscure castaneo-brunnea, reticulato-verrucosa.

Hab. ad corticem Pini Pityusæ, Prinkipo prope Constantinopolim.

5. Hormiscium Vulpinæ Lindau, Rabenh. Krypt. Fl. Ed. II Hypho-8340 myc. VIII (1906) p. 597. — Cæspitulis amphigenis sed sæpius epiphyllis, subrotundis v. oblongis, convexulis, ex mycelio in folio repente erumpentibus, usque ad ½ mm. long., non confluentibus, atrobrunneis, e catenulis conidiorum tantum formatis, firmulis dein pulverulentis; catenulis brevibus, initio ex filamentorum longiorum divisione ortis; conidiis depresso-globosis, eguttulatis, brunneis, circ. 3,5-4 × 4.

Hab. in foliis putrescentibus Caricis vulpinæ pr. Triglitz Germaniæ (JAAP).

## ACROTHECA Fuck. — Syll. IV p. 276, X p. 579.

1. Acrotheca Dearnessiana Sacc. in Ann. Mycol. X (1912) p. 314. 8841 — Maculis brunneis hypophyllis; hyphis conidiophoris imprimis nervisequiis, sparsis, cylindraceis, subrectis, brunneolis, 45- 48 × 4-5-septatis; conidiis in apice conidiophori 3-5-capitatis, oblongo-fusoideis, apice obtusioribus, subinde leviter inæquilateris, 12- 15 × 4-5, hyalinis, 1-2-guttulatis.

Hab. in foliis languidis Piri melanocarpæ, London Ontario Amer. bor. (J. Dearness). Teste collectore species suis locis communis et diu vigens.

2. Acrotheca virens (Tul.) Cost., Muced. simpl. p. 93, fig. 58. — 8842 Dematium virens Tul. Sel. Carp. II, p. 253, t. XXXIII (1863). — Hyphis conidiophoris gregariis, erectis, rectis, filiformibus, septatis, fuligineis, 500 × 4-7, apice inflatulis et denticulatis pallidioribus; conidiis cylindrico-allantoideis, hyalinis, capitulatis, circ. 15-16 × 2, curvulis, continuis.

Hab. in ligno quercino prope Lutetias Galliæ, socia Chætosphæria innumera, cujus, teste Talasne, esset st. conidiophorus. — Primitus, teste eodem auctore, conidia formantur item capitulata, periconioidea, ovoidea, pallide fusca, 6,5 × 3 et etiam helmintho-

sporioidea 6-8-septata, 25-30 v 3. - An vere ex eodem mycelio?

3. Acrotheca Zignoëllæ v. Höhn. Sitzb. d. k. Ak. Wissensch. Wien 8848 CXVIII, Abt. I (1909) p. 332. — Hyphis sparsis v. pauci-aggregatis, plerumque simplicibus, erectis, firmulis, tenui-septatis, diaphane brunneis, usque ad 320 × 5-6, superne tantum 3 μ cr. ibique rarius 1-3-incurvo-ramulosis; conidiis cylindraceis, continuis hyalinis, rectis, apice rotundatis, basi cuneatis, 10-13 × 2-3, capitatis et subconglutinatis.

Hab. in cortice levigato emortuo Abietis, Wienerwald Austriæ, non raro socia Zignoella Abietis, cujus verisimiliter est status conidiophorus.

### HAPLOBASIDIUM Eriks. — Syll. X p. 578.

1. Haplobasidium pavoninum v. Höhn. Ann. Mycol. III (1905) p. 407 8844 c. ic. — Parasiticum; maculis sæpius solitariis v. binis, sæpius marginalibus, elongatis, circ. 2 cm. long., 1 cm. lat., purpureo-brunneo-marginatis, centro flavidis v. ochraceo-flavis, hyphis intramatricalibus hyalinis, septatis, e cellulis latitudine sua 2-3-plo longioribus, tenuibus formatis, irregulariter ramosis, fibulis et haustoriis destitutis, 3-6 μ. cr., intercellularibus; hyphis fertilibus e cuticula erumpentibus, brevibus, 8 μ. cr., sæpius simplicibus 1-cellularibus, griseo-brunneis, demum cæspitulos farinaceo-velutinos formantibus, 25-48 × 6-8, superne inflatis et 12-16 μ. cr., ibique catenulas 3-5 breves subverticillatas gerentibus; conidiis inferioribus oblongo-clavatis 10 × 5-6, superioribus subglobosis minoribus, fumoso-griseis, 6-9 × 6-7, in quaque catenula 3-5.

Hab. in foliis vivis Aquilegiæ vulgaris pr. Altenmarkt et Krems Austriæ (v. Höнnel). — Maculæ illas pennæ pavoninæ in memoriam revocant.

PERICONIA (Tode) Bon. — Syll. IV p. 270, X p. 578, XI p. 612, XIV p. 1071, XVI p. 1157, XVIII p. 568.

1. Periconia Spegazzinii Sacc. — Periconia levispora Speg. Myc. 8845 Argent. V p. 431, in Anal. Mus. Nac. Buenos Aires XX (1910) non Lindau. — Tenuissima atro-olivacea, hyphis sterilibus nullis, hyphis fertilibus laxis erectis tenuibus, 8-10 × 0,5-2, laxe septulatis, subopace fuligineis, capitulo globoso, 50-90 μ diam. conidiorum terminatis, sub apice ramululis alternis adpressis, 15-30 × 5-6, brevissime bilobis concoloribus ornatis; conidiis globosis 4-6 μ. diam.,

plus minusve intense olivaceis, dichotomice botryoso-catenulatis, eguttulatis, levibus.

Hab. ad petiolos dejectos putrescentes Zizyphi vulgaris in horto San Miguel prope Buenos Aires Argentina Amer. austr.

- Species notis plurimis ad Haplographium vergens.

2. Periconia javanica Koord., Bot. Untersuch. Java (1907) p. 228, fig. 8346 38 — Hyphis sterilibus repentibus, pro parte endophyllis; hyphis fertilibus simplicibus, fuscis, fasciculatis, rectis v. curvulis v. flexuosis, apice hyalinis et vix v. haud inflatis, 100-110 × 8-10, parce septatis, apice conidigeris; conidiis fuscis, continuis, globosis, 8-9 μ. diam., extus minutissime punctulatis v. levibus.

Hab. saprophytica v. parasitans in vulneribus foliorum Fici elasticæ prope Loano prov. Kedu Java (Koorders).

3. Periconia Elasticæ Koord., Bot. Untersuch. Java (1907) p. 229, f. 39. 8347 — Hyphis sterilibus repentibus, pro parte endophyllis; hyphis fertilibus simplicibus, fuscis, fasciculatis, 350-550 μ. longis, basi 9-12,5 μ. cr. cr. rectis v. curvulis, apice conidigeris; conidiis fuscis, continuis, globosis, capitato-congregatis, 10,5-14 μ. diam., exosporio minute echinulato.

Hab. saprophytica v. parasitans in vulneribus corticolis Fici elasticæ prope Kaliwiro et Penunggalan prov. Kedu Java, octob. 1905 (Koorders).

4. Periconia levispora Lindau, in Rabenh. Krypt. Fl. Ed. II Hypho-8848 myc. VIII (1906) p. 616. — Cæspitulis, in maculis elongatis sitis, inæqualiter confertis, brunneo-viridulis, flocculosis, ex conidiophoris tantum constantibus; conidiophoris erectis, senio dilabentibus, remote septatis, usque ad 1000 ≈ 11−24, plerumque indivisis, deorsum incrassatis, viridulo-brunneis, diaphanis, sursum subhyalinis et processibus brevibus obtusis latiusculis ornatis; conidiis in processibus solitarie acrogenis, 13-16 ≈ 8-12, globoso-ovoideis, capitula subrotunda oligospora formantibus, basi subinde apiculatis, viridulis, intus granulosis.

Hab. in foliis Acori Calami pr. Hamburg. Germ. (JAAP). —

Peric. pycnosporæ affinis sed conida majora, levia etc.

5. Periconia ramosa Spring. in Bull. Acad. Belg. 19 (1852) p. 557-8349 58, cum icone — Species omnino anceps, potius *Mucor!* 

Hab. in substantiis putrescentibus in Belgio.

6. Periconia lichenoides Tode, Fungi Mecklenb. II, tab. 8, fig. 61 8350 (1791).

Hab. ad caules putres in Germania. - Stirps omnino dubia.

**STACHYBOTRYS** Corda — Syll. IV p. 269, X p. 577, XI p. 612, XIV p. 1071.

1. Stachybotrys Elasticæ Koord., Botan. Untersuch., Java (1907) 8351 p. 227, f. 37. — Hyphis sterilibus repentibus, fumigatis, septatis; fertilibus erectis, fumosis 50-200 × 4, dichotome ramosis sparse septatis; conidiophoris capitatis, clavato-oblongis, rectis v. curvulis, subhyalinis; ovoideis v. globulosis, interdum curvulis, continuis, atris, levibus, 7-12 × 6-8.

Hab. in foliis emortuis v. languentibus Fici elasticæ prope Purworedjo prov. Kedu Java (Koorders).

2. Stachybotrys socia (Sacc.) Sacc in litt. ad T. Ferraris, Ann. My-8852 col. VII (1909) p. 283. — Ita vocanda *Fuckelia socia* Sacc. — Syll. IV p. 331 — nam conidia denique fusca evadunt.

#### PERICONIELLA Sacc. — Syll. IV p. 275.

1. Periconiella Missionum Speg., Myc. Arg. V, p. 431, in An. Mus. 8353 Nac. Buenos Aires XX (1910). — Maculis amphigenis sæpius orbicularibus, 5-7 mm diam., determinatis, arescentibus, fragilibus, cinereis, obsolete areolatis; hyphis fertilibus sparsis sæpius epiphyllis erectis simplicibus 300-400 × 15-20, sæpius 3-4-septatis subopacis levibus apice subgloboso-capitatis, 35-50 μ. diam., levibus, fuligineis; conidiis globosis, 15-18 μ. diam., e papillis minutissimis el laxis capitulorum ortis, non catenulatis, fuligineis, minute denseque papillulosis.

Hab. ad folia viva v. languida Bauhiniæ forficatæ in silvis Puerto León Misiones Argentina, Amer. austr.

- MICROTYPHA Speg. Myc. Arg. V. p. 432, in Anal. Mus. Nac. Buenos Aires XX (1910) (Etym. micros parvus et Typha ob conidia, Typha ad instar, cylindraceo-conferta) Hyphomycetea dematica, macronemea; hyphæ fertiles erectæ articulatæ simplices graciles prope basim nudæ cæterum dense minuteque papillato-asperæ; conidia unicellularia in papillis solitarie acrogena, dense constipata fuliginea, massam cylindraceam constituentia. Videtur Doratomyces phæosporus.
- 1. Microtypha saccharicola Speg. l. c. p. 432 cum icon. Hyphis 8854 sterilibus nullis, fertilibus dense gregariis, rectis v. subcircinatis fumosis, subtorulis, parte nuda brevi, 15-20 × 4-5, capitulo cylindrico obtusiusculo 100-250 × 16-20 aterrimo; conidiis ellipsoideis, utrinque rotundatis, 5-6 × 3-4 subopacis, eguttulatis, levibus.

Hab. ad culmos dejectos putrescentes Sacchari officinarum prope Ledesma Yujuy Argent. Amer. austr.

HORMODENDRUM Bon. — Syll. IV p. 310, X p. 591, XIV p. 1076, XVIII p. 581.

1. Hormodendrum Citri Briosi et Farn. Atti Istit. Bot. Pavia (Extr. 8355 1906) p. 21, tab. I-XI pr. p. — Hyphis teretiusculo-fusoideis, simplicibus, septatis, brunneis, e mycelio repente ortis, sæpe 80-110 × 4,5-5; conidiis corymbose catenulatis, ellipsoideis v. oblongis, continuis, brunneis, 6-8 × 4,5.

Hab. in fructibus Citri Limonis morbo s. d. ruggine bianca deturpatis, in Sicilia.

2. Hormodendrum griseum Hedgcock, 17th Ann. Rep. Miss. bot. 8356 Gard. St. Louis (1906) p. 100 tab. 10, fig. 2. — Mycelio albido granuloso, vetusto crasse tunicato, 3-10 μ. cr.; conidiophoris erectis, septatis, sursum penicillato-ramosis, 200-800 × 3-4, ramulis brevibus 1-2-septatis, oblongis, mox in catenulas longas, ramosas conidiorum abeuntibus; conidiis ellipsoideis, fuligineis, 3-6 × 2-4, levibus.

Hab. in lignis udis Liquidambaris styracifluæ, Pini echinatæ, Fraxini americanæ, in Amer. bor.

ASPERGILLOPSIS Speg., Myc. Arg. V, p. 434, in Anal. Mus. Nac. Buenos Aires XX (1910) (Etym. Aspergillus et opsis facies). — Est Sterigmatocystis dematica, hyphis conidiisque olivaceis v. nigris.

1. Aspergillopsis intermedia Speg., l. c. p. 435. — Cæspitulis spar- 8357 sis, laxis; hyphis fertilibus parce cæspitosis, continuis, 1-3 mm. long. 10-12 μ. cr., hyalinis, capitulo subcompactiusculo nigro coronatis; vesicula hyalina minute papillata 40 μ. diam.; pseudobasidiis primariis eximie clavato-subcapitatis, hyalinis 40-50 × 10-12, secundariis ovato-elongatis 7 × 3-4, hyalinis, apice acutis atque nigrescentibus; conidiis globosis, 4-4,5,μ. diam., catenulatis, sublevibus, fuligineis, eguttulatis.

Hab. ad folia dejecta putrescentia Coffeæ arabicæ loco udo diu servata, La Plata Argent. Amer. austr.

Aspergillopsis pulchella Speg., Myc. Arg. V p. 436, cum icon., 8358 in An. Mus. Nac. Buenos Aires XX (1910). — Cæspitulis nigerrimis dense gregariis sæpe confluentibus ac totum substratum obtegentibus; hyphis fertilibus dense cæspitosis, septulatis, erectis, 1-2 mm. long. 18-20 μ. er., fumosis, capitulo globoso 50-60 μ.

diam. nigro coronatis; pseudobasidiis primariis obconicis,  $30 \times 10$ , chlorinis, secundariis subpyriformibus  $10 \times 10$ ; conidiis globosis 8-10  $\mu$ . diam., dense minuteque asperulis, fuligineis, eguttulatis.

Hab. abunde ad fructus putrescentes Citri Aurantii in arvis

prope Tucumán Argent. Amer. Austr.

3. Aspergillopsis nigra (Van Tiegh.) Speg l. c. p. 435. — Ita vo. 8359 candum est Aspergillus (Sterigmatocystis) niger Van Tiegh. Syll. IV p. 75.

**HAPLOGRAPHIUM** B. et Br. — Syll. IV p. 304, X p. 588, XIV p. 1076.

Haplographium Yerbæ Speg., Anal. Mus Nac. Buenos Aires t. XVII 8360 (1908) p. 139. — Plagulis sæpius centrum sectionum occupantibus vage nubilosis, ægre perspicuis, olivascentibus; conidiophoris cylindraceis inter se remotiusculis, basi non bulbosis, sursum attenuatis, 100-500 × 8-12, apice obsolete denticulatis, capitulum globosum 30-50 μ. diam. fulcentibus, nigris; conidiis e denticulis apicalibus stipitum catenulatim exsurgentibus, catenulis sæpes ubdichotomis, globosis, 6-7 μ. diam., levibus, sæpius grosse 1-guttulatis, olivaceis.

Hab. in schidis aridis subputrescentibus Ilicis paraguarien-

sis circa San Pedro Misiones Rep. Argentina.

2. Haplographium chlorocephalum (Fres.) Grove — Syll. IV, p. 306 8361 — \*H densum Sacc. in Ann. Mycol. IX (1911) p. 256. — A typo differt cæspitulis densioribus, sordide olivaceis; hyphis conidiophoris æqualibus, septatis, 400-500 × 7-8, apice indivisis, obtusis, vix denticulatis; capitulis globosis, 50-60 μ. diam.; conidiis catenulatis, sphæricis, 1-guttatis, levibus, 4 μ. diam., ochraceo-olivaceis.

Hab. in culmis putrescentibus Sacchari officinarum in insula Madera, 1910 (Communic. prof. Torrend). Densitate, colore, conidiophoris omnino indivisis forte specifice distingui meretur. Cum H. Sacchari nil commune habet.

### ŒDEMIUM Link - Syll. IV p. 297.

Edemium Thalictri Jaap, Ann. Mycol. III (1905) p. 401. — Ma 8862 culis majusculis foliola integra subinde occupantibus, griseis, brunneo-marginatis; cæspitulis nigricantibus, hypophyllis; conidiophoris rigidulis, erectis, indivisis, raro ramosis, basim versus latioribus, flavidis, 25-32 × 6, apice v. latere cellulis conidiophoris atris, 11 μ. diam., globosis præditis; conidiis sphæricis, 5-9,5 μ. diam., flavidis, tunica obscuriore, verruculosa.

Hab. in foliis vivis Thalictri minoris pr. Warnemünde, Mecklenburg (JAAP).

**HADROTRICHUM** Fuck. — Syll. IV p. 301, X p. 588, XI p. 613, XVI p. 1053, XVIII p. 571.

1. Hadrotrichum dryophilum Saccardo, Not. Myc. VI, Ann. Myc. III 8368 (1905) pag. 515. — Cæspitulis plerumque hypophyllis, in maculis arescendo fuscis, indefinitis, sparsis, perexiguis, punctiformibus, 50-60 μ. diam., superficialibus, nigricantibus; conidiophoris radiatim dense fasciculatis, cylindraceo-oblongis, 20-25 × 3-3,2, continuis, olivaceis, apice rotundatis v. acutulis, monosporis; conidiis ellipsoideis v. obovoideis, rectis, continuis, dilute olivaceis, 9-10 × 6-6,5.

Hab. in pag. inf. foliorum languidorum Quercus pedunculatæ, Montello, Treviso, Ital. bor. — A speciebus congeneribus omnino diversa.

2. Hadrotrichum anceps Sacc., Ann. Mycol. IX (1911) p. 255. — Cæ-8364 spitulis sæpius hypophyllis, seriatim gregariis v. subsparsis, breviter linearibus, minutis, 0,5 mm. long., castaneo-nigris, prominulis, compactis; conidiophoris dense parallele stipatis, cylindricis, rectis, rarius sursum crassioribus, 35-40 ≈ 5,5-6, fuligineis, septo unico prope basim præditis, apice minutissime (ex insertione conidiorum) asperulis; conidiis globosis, rarius ellipsoideo-globosis, 8-9 μ. diam., fuligineis, episporio tenui, non omnino levigato.

Hab. in foliis languidis Brachypodii sp. in Gallia (P. Harror). — Inter Hadr. virescens et Hadr. microsporum fere medium sed satis distinctum.

Hadrotrichum microsporum Sacc. et Malbr. — Syll. IV, p. 301 — 8365 var. macrosporum Karst., Acta Soc. pro Fauna et Fl. fenn. XXVII 4 (1905) p. 11. — Conidiis sphæroideis, subhyalinis (sub micr.), 8-13 μ. diam.; conidiophoris 30-40 × 8.

Hab. in foliis Agrostidis albæ languescentibus in regione Киоріоёляі Fenniæ (О. Lönnboнм).

RHINOCLADIUM Sacc. et March. — Syll. IV p. 295, X p. 585, XIV p. 1073, XVI p. 1053, XVIII p. 572.

Rhinocladium Lesnei Vuill., in Bull. Soc. Sc. Nancy (1910) p. 10 8366 et p. 13, f. 1-12. — Hyphis ramosis, septatis, circ. 1-3 μ. lat., mox fuligineis, discretis aut fasciculatis et tunc ascendentibus, synnematis ad instar; conidiis oblongis v. ovoideis, breviter pedicu-

latis, fuligineis, 4-7 × 3-3,5, solitariis, insidentibus in hyphis passim v. præcipue ad apicem denticulatis, cylindricis, aut passim inflatis, aut rarius nodosis.

Hab. e tumore pedis hominis extractum in insula Madagascar. Colitur in calidariis Paris, Nancy, temp. 25-35°C. — Quoad ejus variationes cfr. Vuill, l. c.

TRICHOSPORIUM Fr. — Syll. IV p. 288, X p. 583, XI p. 613, XIV p. 1073, XVI p. 1052, XVIII p. 573.

1. Trichosporium vesiculosum Butler, Some Indian forest Fungi p. 9, 8867 cum ic. p. 5, in Indian Forester (1905). — Hyphis brunneis vel subhyalinis matricem penetrantibus et sub cortice in cæspitulos contextis; fertilibus filiformibus, 1,5-2  $\mu$ . cr., hyalinis, bis vel ter ramosis, apicibus incrassatis; conidiis ad hos apices glomeratis, numerosis, sessilibus, ovoideis, brunneis, coacervatis nigricantibus, 5-8  $\pm$  4,5-6 (conidiis interne formatis 6  $\pm$  4,5).

Hab. parasitice sub cortice Casuarinæ equisetifoliæ, Chatrapur, Ganjam, India. — Trichospor. aterrimo Massee (Syll. XVI, p. 1052) non Corda (Syll. IV, p. 289) forte peraffine. Species illa, causa homonymiæ, Trich. Masseei Sacc. nunc dicenda.

2. Trichosporium Staritzii Bres., Fungi gall., App., Ann. Myc. VI 8368 (1908) p. 47. — Cæspitulosum, nigricans; cæspitulis laxis ex hyphis simplicibus vel ramosis, septatis, sub microscopio olivaceis, apice albidis, longissimis, usque ad 3 mm. longis 12-18 μ. crassis; conidiis prope apicem ramulorum insertis, dilute olivaceis, ellipticis, 10-13 × 8-9.

Hab. in spinis capsulæ Castaneæ vescæ Dessau Germaniæ (Staritz). — Trichosporio nigricanti Sacc. proximum.

3. Trichosporium variabile Peck, New York St. Mus. Bull. 139 8369 (1909) p. 31. — Late effusum, stratum tenue indeterminatum nigrescens formans; hyphis repentibus v. suberectis, simplicibus v. ramosis, continuis v. leviter septatis, 4-5  $\mu$ . cr., fuscis seu partim hyalinis; hyalinis fuscis, globosis, 6-10  $\mu$ . lat. vel oblongis, 8-12  $\times$  6-8.

Hab. in charta murali, Lyndonville Amer. bor. (C. E. FAIRMAN).

— A Tr. chartaceo conidiis latioribus diversum. — An forma Stachybotryos alternantis?

4. Trichosporium Saccardoi Lindau, Krypt. Fl. Pilze VIII, p. 652. 8870
 — Ita vocetur Botrytis velutina Wallr. — Syll. IV, p. 128 — quæ reapse vera Trichosporii species est, uti ipse l. c. suspicatus

sum et quæ diversa a Trichosp. velutino Sacc. -- Mutatio nominis Trichosporii polyspori (Corda) Sacc. in Tr. fertile Lindau ab hoc auctore proposita, superflua est, nam habemus Sporotrichum polysporum Link, quod Trichosporium non est.

CAMPSOTRICHUM Ehrenb. — Syll. IV p. 295, X p. 586, XI p. 613, XIV p. 1074, XVIII p. 574.

1. Campsotrichum cladosporioides Sacc., in Ann. Mycol. VIII (1910) 8371 p. 340. — Hypophyllum, maculas subcirculares, depressas 8-10 mm. diam., olivaceo-atras marginem versus dilutiores, velutino-pulvereas formans; hyphis sterilibus prælongis, intertextis, filiformibus, æqualibus, repentibus 3-4 μ. cr, parce septatis, hinc inde asperulis; conidiophoris ex hyphis sterilibus egredientibus ascendentibus tortuoso-nodulosis, crebrius septatis, 28-38 × 4, plerumque indivisis; conidiis variis (ut in Cladosporio) ex ovato cylindraceis, continuis v. 1-2-septatis, varie guttatis, non constrictis, levibus, 11-15 × 2,6-3, olivaceis.

Hab. in foliis vivis Trichiliæ emeticæ, Ghinda in Val Cecca alt. 800 m. (Hamasen) Africæ (Hadr. Fiori). — Maculæ quasi Meliolæ v. Asterinæ. Videtur omnino ad gen. Campsotrichum ducenda species, tamen emendato charactere conidiorum, quæ (ut in Cladosporio) continua v. etiam 1-3-septata sunt; nisi velimus nov. gen. condere.

GLENOSPORA B. et C. — Syll. IV p. 298, X p. 586, XIV p. 1074.
1. Glenospora Elasticæ Koord., Bot. Untersuch. Java (1907) p. 229, 8372 fig. 40. — Hyphis laxis fuligineis, septatis, ramosis, epiphyllis; conidiis atris v. obscure fuligineis, continuis, acrogenis, levibus, depresso-globosis, ramulis diu hærentibus, 14-16 × 12-12,5.

Hab. in foliis putrescentibus Fici elasticæ prope Purworedjo prov. Kedu Java (Koorders).

**DEMATIUM** Pers. — Syll. IV p. 308, X p. 589, XI p. 614, XVI p. 1053.

1. Dematium levisporum Speg., Myc. Arg. V, p. 433, in An. Mus. Nac. 8878 B. A. XX (1910). — Cæspitulis superficialibus sæpe subseriatis laxe gregariis, penicilliformibus, 1-2 mm. alt. 0,5-0,7 mm. diam., ex hyphis basi subfasciculatis sursum relaxatis granuloso-sporiferis erectis, 1000-1500 ≈ 6-9, septulatis, subopace fuligineis, simplicibus v. parum infra apicem breviuscule patentem alternis 1-3-

ramulosis constitutis; catenulis simplicibus v. ramoso-dichotomis, ramis subbotryosis, 2-10-articulatis; conidiis globosis, 5-7  $\mu$ . diam., levissimis, eguttulatis, opace fuligineis.

Hab. ad culmos dejectos putrescentes Sacchari officinarum in arvis prope Tucumán Argentina Amer. austr.

CATENULARIA Grove - Syll. IV p. 303, XIV p. 1076, XVI p. 1053.

1. Catenularia antarctica P. Henn., Deutsche Südpolar-Exped. Bd. 8374 VIII (1906) Extr. p. 15, t. II, f. 24. — Cæspitulis sparsis, pulvinatis, amphigenis, atris; hyphis erectis, fuscis, septatis, 300-500 ≈ 5-7, simplicibus, flexuosis; conidiis acrogenis concatenatis, subglobosis, sæpe angulatis, atro-castaneis, granulosis, 10-16 μ. diam., dein liberis.

Hab. in foliis siccis Poæ Cookii in insulis Possessionis ad polum australem.

**ZYGODESMUS** Corda — Syll. IV p. 283, X p. 581, XI p. 612, XIV p. 1072, XVI p. 1051, XVIII p. 574.

Zygodesmus isabellinus Karst., Acta Soc. pro Fauna et Fl. Fenn. 8375 XXVII, 4 (1905) p. 11. — Hyphis repentibus, intricatis, ramosis, levibus, stratum effusum isabellinum pulverulentum efformantibus, mollibus, 3-5 μ. cr.; conidiis sphæroideis, muricatis, dilutissime flavescentibus (sub lente), 8-10 μ. diam.

Hab. supra corticem vetustum Pini silvestris prope Mustiala Fenniæ.

2. Zygodesmus avellaneus Saccardo, New Fungi New York, Journ. 8876 of Myc. v. XIII (1907) p. 48, cum icon. — Effusus, velutinus, avellaneo-olivaceus; hyphis varie intricatis, ramosis, crassiusculis, dilute flavidis, septatis, 9-11 μ. diam., articulis interdum gibbis v. inflatulis rarius apice subrotundatis; conidiis acro-pleurogenis, globisis, minute asperulis, dilute melleis, 9,5-10 μ. diam.

Hab. in cortice emortuo Pruni serotinæ, Lyndonville, N. Y., Amer. bor. (Dr. C. E. Fairman). — Affinis Z. fulvo var. olivascenti Sacc., differt præcipue hyphis etiam fertilibus multo crassioribus, nempe 9-11 μ. nec 5-7 μ. et colore. — Affinior forte Zyg. pallido-fulvo Peck.

Zygodesmus pallido-fulvus Peck, New York State Mus. Bull. n. 8877
105 (1906), p. 30. — Tenuiter effusus, pallide fulvescens; hyphis
irregulariter ramosis, ramulis sæpius brevibus; conidiis globosis,
echinulatis, 10-12 μ. diam.

Hab. in lignis dejectis, Lyndonville New York Amer. bor. (FAIRMAN).

4. Zygodesmus serbicus Ranojevic, Ann. Mycol. VIII (1910) p. 397, 8878 fig. 35. — Plagulis effusis, pannosis, primum flavis, dein rubrobrunneis; hyphis ramosis, septatis, hinc inde anastomosantibus, flavidis, dein flavo-brunneis, tunica incrassata præditis, apice pallidioribus, 6-11,5 μ. cr., lateraliter v. ad apicem globoso- v. piriformi- v. conoideo-incrassato-clavatis, ibique septo limitatis 13-23 × 9,5-15, et sterigmatibus pallidioribus 2-6,5 × 2-3 præditis; conidiis (sporis?) globosis, ellipsoideis, ovoideis, basi umbilicatis, levibus, flavo-brunneis, contentu granuloso, 13-21 × 7,5-17.

Hab. in ligno putri Tiliæ argenteæ, Koschutnjak Serbia.

5. Zygodesmus membranaceus Ell. et Ev. — Syll. Fung. X, pag. 8879 581 et in Ann. Mycol. X (1912) p. 321.

Hab. in frustulis, foliis, Muscis emortuis, strobilis dejectis in Horto bot. Patavino et in Amer. bor. — Perfecte congruit cum specie Ellisiana. Membranulas subroseo-isabellinas vix velutinas format; hyphis filiformibus 4 μ. cr., interdum horizontaliter anastomosantibus, ex hyalino isabellinis, hinc inde prominenter nodoso-fibulatis, apicibus sensim leniter clavulatis ibique 5 μ. cr., muriculato-conidiophoris; conidiis globosis v. subglobosis, 2,5 μ. diam. rarius 3 × 2,5, levibus, subhyalinis. — Probabiliter Hypochnus sulphurinus (Karst.) Sacc. — Syll. IX p. 243 — est hujus speciei varietas, basidiis quoque deficientibus. E contrario Hypochnus diffusus Sacc. — Syll. IV p. 287 (sub Zygodesmo) — basidiis instructus, videretur status perfectus Zygodesmi membranacei.

- ACTINOCHÆTE Ferro, N. Giorn. bot. ital, XIV (1907) p. 232 (Etym. actin radius et chæte seta). Hyphæ repentes, radiantes, ramosæque, nondum nodosæ, parce septatæ, subochraceæ. Conidia subglobosa, hyalina, muricata, ex hypharum denticulis apicalibus oriunda.
- Actinochæte arachnoidea Ferro, Nuovo Giorn. bot. it. N. S. v. 8380 XIV (1907), p. 232, tab. III, fig. 8. Effusa, sordide ochracea; cæspitulis depressis, stratum arachnoideo-membranaceum formantibus; hyphis radiantibus ad basim luteo-fuscis, apice hyalinis, valde ramosis; ramulis secundariis 3-5 μ. cr., in ramulis primariis 5 μ. crassis recte insertis varieque intricatis, apice furcatis et irregulariter lobulatis; conidiis hyalinis, subglobosis, eximie aculeatis, 3,5-5 μ. diam.

Hab. in foliis coriaceis plantæ arboreæ, Tham-moi, Tonkin (BALANSA; in herb. SACC.).

#### Subsect. 2. Dichromæ SACC.

# CIRCINOTRICHUM Nees — Syll. IV p. 314, XVI p. 1055.

1. Circinotrichum microspermum v. Höhn., Stzb. k. Ak. d. Wiss. 8381 Wien CXVIII, Abt. I (1909) p. 411. — Cæspitulis 0,5-0,6 mm. diam., subrotundis v. oblongis, griseo-brunneolis, confertis, distinctis; hyphis sterilibus erectis 160 p. altis, brunneo-violaceis, tenui-tunicatis, levibus, septatis, basi discoideo-dilatatis, 3-3,5 u. lat., sursum tenuioribus, 2-4-divaricato-ramosis, extremitate subhyalina et bis terve spirali-convoluta; conidiophoris hyalinis, continuis, subconicis, ad basim hypharum sitis; conidiis solitarie acrogenis, cylindraceis, apicibus acutis v. obtusulis, hyalinis, 6-8 × 1,5.

Hab. in foliis emortuis, Buitenzorg Javæ.

### ELLISIELLA Sacc. — Syll. IV p. 315, X p. 592.

1. Ellisiella chilensis Speg., Fung. Chilenses (1910) p. 184, cum 8382 icon. — Maculis stromaticis epidermide innatis orbicularibus, 0,5-2 mm. diam., atris, setulis laxis, rigidis, acutis, rectis, opacis armatis; conidiis fusoideis non v. leniter arcuatis, plerumque utrinque acutatis, 20-25 × 1,5-2, hyalinis, sparsis.

Hab. copiose in foliis dejectis subputrescentibus Persea lingue prope Ciudad de Valdivia Chile Amer. austr.

2. Ellisiella? Boldoæ Speg., Fungi Chilenses (1910) p. 183, cum icon. 8383

- Cæspitulis epiphyllis erumpentibus pusillis, atris, laxe gregariis; hyphis, 3.20 erectis rigidulis, 100-250 × 4-5, fuligineis, e nodulo stromatico communi, 60-100 μ. diam. oriundis; conidiis fusoideis, arcuatis, utrinque acutis, 18-20 × 1,5-1,75, unilocularibus. hyalinis.

Hab. in foliis dejectis subputrescentibus Boldoæ fragrantis prope Talcahuano Chile Amer. austr.

# SARCOPODIUM Ehrenb. — Syll. IV p. 312, X p. 591.

1. Sarcopodium Saccardianum L. Gaja, Flora Micol. prov. Padova, 8384 p. 28 (sunto litogr.) — Cæspitulis confluentibus irregulariter suborbicularibus, fuscidulis, tomentosis; hyphis sterilibus e contextu filiformi laxe pseudostromatico fulvo emergentibus, parce septatis, setiformibus, rigidis, basi expansis, subatris, 480-550  $\mu$ . longis; sporophoris subcylindraceis, vix septatis, basi flavo-subatris, apicem versus hyalinis, denticulatis et subrotundatis, 6-7  $\mu$ . latis; conidiis hyalinis, in apiculis ad partem superiorem sporophororum dispositis, bacillaribus, guttulatis, 16-17  $\approx$  3-3  $^{1}/_{o}$ .

Hab. in trunco emortuo, Arquà in Euganeis, pr. Pataviis, It. bor, ad ripam lacus. — Cum haec species a typo generico differat setis rectis, nunquam tortuosis, et conidiophoris polysporis, subgenus novum constituit, quod Orthochætium vocandum proposuit cl. Gaja.

CHLORIDIUM Link — Syll. IV p. 320, X p. 593, XVIII p. 626.

1. Chloridium minutisporum Lindau, in Rabenh. Krypt. Fl. Ed. II, 8385 Hyphomyc. VIII (1906) p. 724. — Cæspitulis indeterminatis, tenuibus, flocculosis, fumosis; conidiophoris erectis, confertis, serius relaxato-intricatis, indivisis, remote septatis, basi paullo crassioribus 3,5-4,5 μ. cr., sursum sensim tenuatis, 3-3,5 μ. cr., deorsum nigricantibus, sursum pallidioribus, apice brunneis, vertice summo acuto v. obtusulo, hyalinis, 100-300 μ. altis (sæpius 200); conidiis oblongis, utrinque rotundatis, 2,5-3 ≈ 0,8-1, hyalinis, pro more capitulatim conglutinatis.

Hab. in ramis dacorticatis putridis Fagi silvaticæ, Sachsenwald pr. Hamburg Germ. (JAAP).

MENISPORA Pers. — Syll. IV p. 325, XI p. 615, XIV p. 1077.

1. Menispora Fairmanæ Sacc., in Ann. Mycol X (1912) p. 314. — 8386 Effusa, tenuissima, cæsio-albida, dein fuscescens; conidiophoris dense gregariis, filiformibus, rigidulis, simplicibus, rectis, fuligineis, septatis, 140-170 × 4-4,5, basi subinde bulbillosis, apice pallidioribus et obtusulis; conidiis fusoideo-falcatis, hyalinis, 14 × 2, plasmate bipartito fætis, utrinque brevissime et obsolete ciliatis, sed valde acutis.

Hab. ad ligna dejecta, Blue Mountain Lake N. Y. Amer. bor. Aug. 1911 (Doct. et Domina FAIRMAN). — Species dignoscitur conidiis parvulis, utrinque acutissimis sed vix ciliatis, conidiophoris simplicibus etc.

VERTICICLADIUM Preuss — Syll. IV p. 327, X p. 594, XVIII p. 627.

Verticicadium Cheesmani Crossl. ap. Cheesman in The Naturalist, 8387
 Syll. fung. XXII (VII-1913)

London, (1907) March, p. 1, tab. IX (extr.). — Effusum, stratis pallide spadiceis; hyphis sterilibus repentibus, septatis, plasmate granuloso, rufo-spadiceis, 4-5  $\mu$ . cr.; hyphis fertilibus seu conidiophoris erectis, bis v. ter ramosis, 4  $\mu$ . cr., ad basim ramulorum vix crassioribus, pallide spadiceis; ramis divergentibus, ramulis ultimis plerumque binis et oppositis, subinde solitariis, obclavato-subulatis, erectis,  $13-15 \approx 3.5$ ; conidiis late ellipsoideis, utrinque rotundatis, pallide spadiceis, levibus,  $6-8 \approx 3.5-5$ , facile secedentibus, intus granulosis.

Hab. in ligno decorticato, Stainor Wood prope Selby Britannia. — An ob colorem pallidum, potius Verticillii specieis?

## ZYGOSPORIUM Mont. - Syll. IV p. 328.

1. Zygosporium oscheoides Mont. — Syll. IV p. 329 — f. Evonymi 8388 Bianchi, Micol. prov. Mantova, Atti R. Ist. bot. Pavia ser II, v. IX. (extr.) p. 317. — A typo differt hyphis fertilibus brevioribus, nempe 45-50 × 4 et pariter breviore conidiophoro 14 × 6, conidiis vero paullo majoribus, nempe 8 × 6,

Hab. in foliis emortuis Evonymi japonici pr. Mantova Ital. bor. (C. Bianchi). — Formam similem in foliis emortuis Saxifragæ in horto bot. Pavia legit Dr. Eva Mameli.

2. Zygosporium mycophilum (Vuill.) Sacc. Ann. Mycol. IX (1911) p. 256. 8389 — Urophiala mycophila Vuill. Bull. Soc. des Scienc. de Nancy, Juin 1910, p. 30, t. IV et V. — Ab affini Zyg. oscheoide Mont. imprimis differt conidiophoro æque clavato-semilunari et brunneo non vero laterali sed acrogeno et saltem initio apice appendicula tereti, obtusa, labili, subhyalina aucto, 9-11 × 7; conidiis ex apice simplici v. bifido oriundis, globoso-ellipsoideis, 5-7 × 4-5, hyalinis.

Hab. inter Mucedines in subere, Nancy et in Bretagne Galliæ (Vuillemin) et in hyphis sterilibus et fertilibus Botrytis vulgaris, Cladosporii herbarum et Capnodii sp. ad folia Oleæ capensis, Nerii, Rhynchospori jasminoidis, Ilicis Aquifolii, Oreodaphnes foetentis, Holmskioldiæ sanguineæ in frigidariis Horti bot. patavini (B. Peyronel). — Genus Urophiala Vuill. etsi situ conidiophori a gen. Zygosporio nonnihil differat, tamen habitus est tam similis ut sola comparatio Zygosporii typici viventis (quod tantum vetustum visum) quæstionem solvere poterit.

**STACHYLIDIUM** Link — Syll. VI p. 331, V pag. 594, XI pag. 615, XVI pag. 1055, XVIII pag. 628.

Stachylidium extorre Sacc. — Syll. IV p. 331. — Var. majus 8890 Berlese, Fungi moricolæ, fasc. V, n. 19 (1888) tab. LX, fig. 1-5. — Cæspitulis griseis, velutinis; conidiophoris cylindraceis, erectis, basi bulbillosis, 300-400 × 4-5, sursum ramosis; ramis oppositis, sursum ramulos 4-5 verticillatos, apice 2-3 furcatos gerentibus; conidiis in capitula acrogena 8-17 μ. diam. mucoso-congregatis, ovoideis, hyalinis, 4-5 × 2, madore solutis.

Hab. in ligno putri decorticato Mori albæ in Horto bot. patavino, Ital. bor. — Stachylidium Hageni Hallier, Rivolta Parass. veg. p. 491, t. 7, f. 210 est verisimillime Penicillii sp. abnormiter evoluta.

CHALARA Corda — Syll. IV p. 333, X p. 595, XI p. 616, XVI p. 1024, XVIII p. 629.

1. Chalara ampullula Sacc. — Syll. IV p. 334. — Var. minor Sacc., 8891 in Ann. Mycol. XI (1911) p. 255. — A typo differt basi phialiformi minore, nempe  $10-12 \approx 4-4.5$  non  $15 \approx 7$ ; conidiis cylindricis utrinque truncatis,  $6-8 \approx 2$ .

Hab. in ligno carioso, ubi maculas velutinas cinereas efficit, Lyndonville N. Y. Amer. bor. (C. E. FAIRMAN).

2. Chalara Brefeldii Lindau, in Rabenh. Krypt. Fl. Ed. II, Hypho-8392 myc. VIII (1906) p. 750. — Polyscytalum fungorum Sacc. — Syll. IV p. 336 (1886) vix Chalara fungorum Sacc. — Conidiophoris fasciculatis, brunneolis, sursum pallidioribus; conidiis in catenas longas sæpe ramosas dispositis, ex interiore hypharum exsilientibus, cylindricis, utrinque obtusis, 10-15 

3-3,5.

Hab. in Nyctalide parasitica una cum Hypomycete asterophoro qui ut status ascophorus est habendus. — Cfr. Phillips in Grevillea XI p. 6, t. 147, f. c-d. et Brefeld Untersuch. X p. 188, t. X f. 51, 52.

3. Chalara Ginkgonis Ferdinands. et Winge, Bot. Tidsskr. XXVIII 8898 (1907) p. 256, fig. 7. — Hyphis sterilibus repentibus v. nullis, fertilibus stricte erectis, unicellularibus, v. cellula basali minima e basi ampullacea leniter attenuatis, cylindricis, 50-62 × 9, apice tantum 2-3,5 μ. cr.; conidiis intra tubulo formatis, ex apice deinceps exsibientibus. cylindricis; utrinque truncatis, hyalinis, 5-7,5 × 2-2,5.

Hab. ad folia Ginkgo bilobæ in horto bot. Hafniæ, Dania.

# Sect. 2. Phæodidymæ \*)

BISPORA Corda - Syll. IV p. 342, X p. 596, XI p. 616.

1. Bispora media Sacc. Ann. Mycol. VI (1908) p. 567. — Effusa v. 8894 sparsa, maculis nigricantibus insidens, atra; hyphis fertilibus e mycelio obsoleto ascendentibus, brevibus, cylindraceis, 18-20 × 4-4,5, dilute fuligineis apice, catenulas conidiorum ferentibus; conidiis ellipsoideis v. suboblongis, crasse 1-septatis, non constrictis, 11-14 × 4, rarissime 2-septatis et 16-17 × 4,2, fuligineis.

Hab. in corticibus dejectis arborum, Lyndonville N. Y. Amer. bor. (FAIRMAN). — Inter. Bisp. monilioidem et Bisp. pusillam media.

- MUCHMORIA Sacc, Not. Myc. VII, Ann. Myc. IV (1906) pag. 277. (Etym. a rev. L. J. Muchmore, generi inventore). Hyphæ septatæ, cæspitosæ; steriles ramosæ decumbentes, fertiles assurgentes, apice in vesiculam globulosam inflatæ; vesicula ubique muriculato-conidiophora. Conidia ovato-ellipsoidea v. oblonga, 1-septata, non catenulata, fuliginea. A genere Cordana conspicue differt hyphis densiuscule cæspitosis, fertilibus apice inflatis et muricato-conidiophoris.
- 1. Muchmoria portoricensis Sacc. l. c. p. 277. Cæspitulis convesor-vo-pulvinatis, superficialibus, hemisphæricis v. oblongis, 1,5-2,5 mm. lat., v. confluentibus, atro-fuligineis, velutinis, interdum griseo-pruinulosis; hyphis sterilibus repentibus, ramosis, intertextis, septatis, fuligineo-olivaceis; fertilibus assurgentibus, 180-200 × 8-9, concoloribus, 3-6-septatis, apice in vesiculam globoso-ellipsoideam, 40-42 × 26-30, ubique muriculatam desinentibus, muriculis conicis, pallidioribus, 3-4 μ. altis; conidiis ovato-ellipsoideis, utrinque rotundatis, 1-septatis, non v. vix constrictis, 22 × 11, olivaceo-fuligineis.

Hab. in rimis corticis arboris emortuæ indet. pr. Signal Towes Hill, Ponce, Porto Rico (rev. L. J. Muchmore). — Ob cæspitulos compactiusculos ad Tuberculariaceas dematieas nutat.

<sup>\*)</sup> Conidia hyalina in Didymariopsis Speg.

- CEPHALOMYCES Bainier, Bull. Soc. Myc. Fr. XXIII (1907) p. 109 (Etym. cephalos caput, et myces) Mycelium repens, album, septatum, hinc inde conidiophora erectiuscula, brevissime clavata, 1-2-septata sursum inflatula et punctato-sporigera generans. Conidia obovata, typice uniseptata, capitata, nigricantia, levia.
- Cephalomyces nigricans Bainier l. c. p. 109, t. XIV. Effusus, 8396 albus, ob conidia nigro-punctatus; conidiophoris 112-140 μ. altis, basi 6-11 μ. cr., vesicula 28-42 μ. diam., dilute fuliginea; conidiis obovatis apice rotundatis, basi conspicue acutatis, 19-25 μ. latis, 1-septatis, vix constrictis, rarius 2-3-septatis, loculo superiore multo majore, nigricantibus.

Hab. in excrementis ovinis udis in Gallia.

- HADRONEMA Syd., Ann. Mycol. VII (1909) p. 172. (Etym. hadros validus et nema filum). Hyphæ basi fasciculatæ, dense stipatæ, simplices v. parce ramosæ, crassiusculæ, obscure coloratæ, septatæ; conidia ovato-oblonga, 1-septata, fusca, plerumque solitarie acrogena, verrucosa. Gen. Hadrotricho affine sed differt conidiis bicellularibus verrucosis.
- 1. Hadronema orbiculare Sydow I. c. Hypophyllum, velutinum, 8397 orbiculare, mox minutum et 1-2 mm. tantum latum, mox majus et 10 mm. circiter latum, atrum; hyphis basi fasciculatis, dense stipatis, plerumque simplicibus, raro ramis 1-2 brevibus præditis, 40-60 × 9-12, atro-olivaceis, parce septatis; conidiis ovato-oblongis, utrinque rotundatis, medio 1-septatis, non constrictis, fuscis, dense verruculosis 20-28 × 11-15.

 ${\it Hab}.$  in foliis vivis Quercus glaucæ, Mount Takao Musashi Japonia.

CLADOTRICHUM Corda — Syll. IV p. 370, XIV p. 1082, XVI p. 1059, XVIII p. 575.

Cladotrichum follicola (Niessl) Ferro in N. Giorn. Bot. it. n. s. XIV 8398 (1907) p. 10, t. III, f. 6 — Myxotrichum foliicolum Niessl — Syll. IV p. 319. — Diagnosis emendata: Effusum; hyphis intricatis, repentibus, subramosis, septatis, hinc inde incrassatis, luteobrunneis, 3-4 μ. diam., conidiis fuscis, sæpe apiculatis, heterogeneis, nunc continuis, ovoideis, 6-7 × 4-5 v. globulosis 6 μ. diam., nunc 1-septatis, loculis æqualibus vel inæqualibus præditis, 10-17 × 4-5; nunc tandem breviter catenulatis.

Hab. in foliis Bombacis malabarici, Calcutta Indiæ or. (Kurz).

2. Cladotrichum simplex Sacc. Not. Myc. VII, Ann. Myc. IV (1906) 8399 p. 277. — Effusum, velutinum, aterrimum; mycelio repente parco; hyphis conidiophoris assurgentibus indivisis, rectis v. leviter flexuosis, 140-160 × 2,8-4, septatis, fuligineis, sursum paullo dilutioribus; conidiis oblongis, utrinque acutiusculis, initio continuis, 1-guttatis, dein constricto-1-septatis, 2-guttulatis, fuligineis, 8-9 × 3-4.

Hab. ad ligna putrescentia in silvis pr. Lyndonville N. Y., Amer. bor. (C. E. Fairman).

CLADOSPORIUM Link — Syll. IV p. 350, X p. 601, XI p. 619, XIV p. 575.

Cladosporium herbarum (Link) Sacc. — Syll., IV, p. 350. — f. carpo-8400 philum Boccarini, Funghi Eritr., Ann. Bot. v. IV (1906) p. 277. — Hyphis sterilibus superficialibus, nascentibus e stromate filamentoso ac lacunoso flores pervadente, flexuosis, repentibus et cespitulos sporigenos dense gregarios, ac in crustam atram confluentes gignentibus; hyphis fertilibus erecto-patentibus 270 × 3-7, articulatis, parce ramosis, brunneis; conidiis nunc unicellularibus 9-10 p.. nunc bicellularibus 20 × 7-9.

Hab. in spicis Panici maximi, Cothait, Mesagus (Pappi).

Monte Agarò 1800-2400 m. Erythrææ (Terracciano et Pappi). —

— Var. cerealium Sacc. in Ferraris, Ann. Mycol, VII (1909)
p. 285. — Stromatibus cellulosis, atro-brunneis; conidiophoris minutis, cæspituloso-fasciculatis, brunneis, septatis, plerumque simplicibus; conidiis catenulatis, primum continuis deinde 1-raro 2-septatis, olivaceis. — In foliis, culmis, spicis, caryopsidibus Cerealium Tritici, Hordei, Secalis etc. in Europa. — Var. vitricola Sacc. in Ferraris l. c. p. 286. — Byssocladium fenestrale Auct. p. p. non Mart. nec Link — A typo differt cæspitulis dendritico-radiantibus, sorididis. — In vitris sordescentibus udis prope Avellino Italiæ austr. (Trotter).

2. Cladosporium Farnetianum Sacc., Cladosporium Citri Briosi et 8401 Farneti, Atti Ist. bot. Pavia X (1907) p. 19, t. 1-11 p. p. an Massee (1899). -- Hyphis erectis v. adscendentibus, rectis v. flexuosis, simplicibus, septatis, apice plerumque oblique obtusatis, brunneis v. pallide fuscis, solitariis v. 2-4 cæspitosis, 50-70 ≈ 3-4,5, rarius 110 ≈ 5, e pseudostromate immerso orientibus; conidiis ellipsoideis

- v. oblongis, simplicibus v. didymis, pallide fuscis, minutis,  $5-11 \approx 4$ . Hab. in fructibus Citri Limonis morbo s. d.  $ruggine\ bianca$  deturpatis, Sicilia.
- 3. Cladosporium corrugatum Mac Alp., Fung. Diseas. Citrus p. 88, 8402 tab. 19, fig. 57 (1899). Cæspitulis dense confertis confluentibusque, nigro-olivaceis, amphigenis, in maculis ovalibus v. irregularibus atro-griseis brunneo-marginatis in epiphyllo et flavido-brunneis in hypophyllo insertis; hyphis septatis, parce ramosis, sæpe curvatis, radiantibus, 5,5 μ. cr.; conidiis acro-pleurogenis, solitariis v. binatis, ovoideo-ellipsoideis, pallide viridulis, intus minute granulosis, demun olivaceis, levibus, elliptico-oblongis, 1-3-septatis, non constrictis, 9-15 × 4,5-5,5.

Hab. in utraque pagina foliorum Citri Aurantii pr. Melbourne Australiæ. — A Cladosp. compacto sat distinctum.

4. Cladosporium Citri Massee Text. book of Plant Diseas. (1899) 8408 p. 310. — Conidiophoris cæspitulosis, erectis, ramosis, septatis, brunneis, 30-75 × 2-4; conidiis fusoideis, obscuris, pro more continuis, interdum 1-3-septatis, 8-9 × 2,5-4.

Hab. in foliis et fructibus Citri Limonis, verruculas 6-7 mm. d. generans, in Florida et Louisiana. Species vere pathogena.

5. Cladosporium nervale Ell. et Dearn. Fungi Columb. (1905) n. 2010. 8404 — Cæspitulis effusis, hypophyllis, olivaceis, in areis foliorum dealbatis sitis; hyphis fertilibus fasciculatis, septatis, parce ramosis, deorsum olivaceo-fuligineis, sursum pallidioribus, 150 × 6; conidiis quam hyphis pallidioribus, acro-pleurogenis, solitariis v. catenulatis, 1-septatis, ellipsoideo-acuminatis, 10.18 × 5-8.

Hab. in foliis vivis Rhois typhinæ, London, Canada Amer. bor. (J. Dearness).

6. Cladosporium compactum B. et C. — Syll. IV p. 364. — Var. 8405 Bosciæ Sacc., Ann. Mycol. VIII (1910) p. 340. — Cæspitulis effuso-confluentibus, brunneo-fuligineis; hyphis ascendentibus, fasciculatis, subsimplicibus, septatis, apice rotundatis, 50-80 × 5; conidiis versiformibus, nunc (typicis) ovoideo-oblongis, 1-septatis, 8-11 × 4-5, nunc (multo rarioribus) fusoideo-subcylindraceis, 14-16 × 4-5, bi-triseptatis, olivaceo-fuscis.

Hab. in areolis internerviis plerumque hypophyllis, ab insectis excavatis, quas omnino occupat, in foliis Bosciæ senegalensis Agordat, Barca, colonia Erythræa, alt. 640 m. — Interdum hyphæ in articulos cylindricos 4—septatos sporomorphos dilabuntur.

7. Cladosporium cornigerum Bubák in Handel Mazzetti Bot. Reise 8406

Pont. Randgebirg. in Ann. Naturhist. Hofmus. Wien XXIII (1909) p. 106. — Cæspitulis parvis, hypophyllis, dispersis v. gregariis, maculis griseo-nigris insidentibus, e tuberculis parvulis, atris, sclerotiiformibus v. gregariis, maculis griseo-nigris insidentibus orientibus; hyphis 50-70 × 4, 3-septatis, parum flexuosis, olivaceo-brunneis; conidiis forma et magnitudine variabilibus, 4-16 × 3-6,5 ovoideis, ellipsoideis fusoideis, usque 1-2-cellularibus, apice attenuatis, basi rotundatis v. truncatis, olivaceo-brunneis.

Hab. in pagina inferiore foliorum vivorum Corni australis

in montibus ponticis Anatoliæ.

8. Cladosporium Grewiæ Bacc., Funghi Eritr., Ann. Bot. v. IV, 8407 (1906) p. 277. — Cæspitulis epi-hypophyllis maculis aridis late effusis, insidentibus; hyphis erectis, simplicibus, gregariis vel fasciculatis, septatis 70-200 μ. longis, conidiis apici et lateri hypharum insidentibus, continuis, uniseptatis vel rarius biseptatis, rotundis vel ovatis 6-7 μ. long.

Hab. in foliis emortuis, exsiccatis Grewiæ, Mai Hiryi Ery-

thrææ (PAPPI).

9. Cladosporium Soldanellæ Jaap, Beitr. Pilzfl. d. Schw., Ann. Myc. 8408 v. V (1907) p. 270; Ann. Mycol VI (1908) p. 217. — Cæspitulis nigricantibus, punctiformibus, primo in maculis subrotundis pallidis concentrice dispositis, dein expansis et folium necantibus, amphigenis, imprimis epiphyllis; conidiophoris in fasciculos densos, erectos, subtortuosos, atro-olivaceos confertis, septatis, ramosis 100-175 × 4-5; conidiis ovoideis, v. oblongis, v. cylindraceis, utrinque rotundatis v. uno polo acutatis, distincte apiculatis, minute spinulosis, dilute olivaceis v. subhyalinis, 1-2-raro pluricellularibus, 8-17 × 4-5.

Hab. in foliis emortuis Soldanellæ alpinæ prope Hospitium M. Sempione, c. 2010 m. alt. et in M. Penegal, Trentino (JAAP).

10. Cladosporium Oxycocci Shear, Bull. Torr. Bot. Cl. XXXIV (1907) 8409 p. 306. — Conidiophoris hypophyllis, simplicibus, septatis, flexuosis, flavido-brunneis, erectis v. diffusis, in cæspitulos minutos confertis; cæspitulis hypostromate sclerotioideo compacto, minuto suffultis, in maculis rufo-brunneis insertis, 50-100 μ. diam.; conidiis acrogenis flavido-brunneis, 1-3 in quoque conidiophoro, subcylindraceis v. subclavatis, continuis v. 1-septatis, 15-24 × 3-4.

Hab. iu foliis vivis Vaccinii macrocarpi, Nova Scotia, N. Yersey, Massachusetts Amer. bor.

11. Cladosporium foveolicola Speg., Myc. Arg. V, p. 437, in An. 8410 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis v. obsoletissimis; cæspitulis e foveolis hypophyllis exsurgentibus, plagulas velutinas atro-olivaceas subindeterminatas efficientibus, ex hyphis paucis (sæpius 3-7) erectiusculis v. vix flexuosulis 80-110 × 4-5, 2-4-septatis, olivaceis, monospermis efformatis; conidiis subcylindraceis acrogenis, solitariis, mox deciduis, rectis v. vix curvulis 20-25 × 4, utrinque rotundatis, continuis v. paucilocularibus (1-2 septulatis) fumosis v. chlorinis.

Hab. ad folia viva Eupatorii bupleurifoli in pratis prope San Javier Misiones Argent. Amer. austr. — An rectius Cercosporæ specie?

12. Cladosporium Rivinæ Speg., Myc. Arg. V, p. 437, in An. Mus. 8411 Nac. Buenos Aires XX (1910). — Maculis orbicularibus, 4-6 mm. diam., determinatis, amphigenis albicantibus exareolatis; cæspitulis sæpius epiphyllis, dense gregariis, olivaceis, minutis; hyphis simplicibus rectis v. vix flexuosis, 50-150 × 5-6, septulatis olivaceis apice non v. vix denticulatis, laxe parceque cæspitosis; conidiis subellipsoideis, 0-3-septatis, 5-15 × 5, ad septa non constrictis, concoloribus.

Hab. ad folia viva Rivinæ levis in dumetis prope Metán Salta Argent. Amer. austr.

13. Cladosporium clavatum Schwabe, Flora anhalt. 2, p. 349, tab. 6, 8412 fig. 13 (1839). — Cæspitulis minutis gregariis, subinde subconfluentibus; hyphis atro-virentibus, pellucidis, inæqualibus, hinc inde flexis et inflatulis, parce ramosis; conidiis minutis, oblongo-clavatis, concoloribus, 1-3-septatis.

Hab. in lignis emortuis, adhuc firmis, imprimis quercinis in Germania

14. Cladosporium Laricis Saccardo, Not. Myc. VI, Ann. Myc. v. III 8418 (1905) p. 515. — Cæspitulis punctiformibus, nigricantibus, erumpentibus, 80-150 μ. diam., hypostromate minute celluloso pulvinato, crassiusculo, olivaceo-fusco suffultis; conidiophoris ex hypostromate ascendentibus, simplicibus, rarissime sursum furcatis, filiformibus, septatis, 30-60 × 4-5, olivaceis, apice pallidioribus; conidiis acrogenis, initio hyalinis minutis, 6 × 2,5, dein paullo majoribus æque hyalinis et continuis, 11-12 × 4-5, denique tereti-oblongis 1-4-septatis, non v. vix constrictis, 13-19 × 5-6, olivaceis.

Hab. in foliis adhuc vivis Laricis europææ quæ inde flavescunt, arescunt et dilabuntur, Giogo di Scarparia (Mugello) in

Appennino etrusco (Prof. V. Perona, commun. prof. H. Fiori). Species laricetis valde noxia. — An sit status magis evolutus v. metageneticus *Hartigiellæ Laricis* (Hart.) Syd. (*Meria Laricis* Vuill.) inquirendum est

15. Cladosporium Miyakei Sacc. et Trott., Cladosporium Oryzæ I. 8414 Miyake, Pilze Reispfl. Japan, Journ. College Agricult. Tokyo, II (1910) p. 262, t. XIV, f. 68-70 — non Sacc. et Syd. — Mycelio superficiali, repente, maculas nigras efficiente; conidiophoris prominentibus obscuris, varie longis, plerumque 45-70 × 4-5, septatis, apice alterne denticulatis; conidiis brunneis, 1-4-sed plerumque 2-locularibus, magnitudine variabilibus, 7-20 × 4-6, septis constrictulis.

Hab. in foliis Oryzæ sativæ in Japonia. — A Cl. maculanti mycelio superficiali distinctum.

16. Cladosporium Exoasci Lindau, Krypt. Fl. Deutsch. etc. Hypho-8415 myc. Bd. VIII (1907) p. 808. — Cæspitulis *Exoasci* bullas æqualiter obtegentibus, velutinis, brunneo-viridibus, fere nitidis, conidiophoris dense stipatis, erectis, vix flexuosis, indivisis, sursum parce nodosis, basi atro-virentibus, diaphanis, apicibus pallidioribus, septatis, grosse guttulatis, 60-120, raro 150 × 4-6; conidiis late ovoideis, utrinque obtusule acutatis, bicellularibus vel ex oblongo subcylindraceis 6-cellularibus, e griseo viridulis, non constrictis, guttulatis, 7,5-16 × 4-8, subcylindraceis vero 15-30 × 7,5-8,5.

Hab. in gallis Exoasci Pruni ad Prunum domesticam Brandenburg (JAAP), Pruni Padi in Helvetia (JAAP) nec non in gallis Exoasci Rostrupiani ad Prunum spinosam pr. Gersfeld Germaniæ (JAAP. — Forte idem ac Clad. Exoasci Ellis in Fung. Columb. n. 1493 (sine diagnosi).

17. Cladosporium parasiticum Sorok. Mykologisch. Ocherk. (1891) 8416 p. 30, Guéguen Champ. paras. p. 256. — Mycelio septato undulato; conidiophoris cylindraceis; conidiis solitariis v. 2-5 in catenulas digestis, continuis v. septatis, 15 × 10.

Hab. in abdomine Melolonthæ fullonis quam vexat v. necat, Saratow Rossiæ.

18. Cladosporium ramulosum Reissek, Sitzb. k. Ak. d. Wiss. Wien 8417 Math. Nat. Kl. VII (1851) p. 336, — Lindau Kryptfl. Pilze, pag. 833.

Hab. in polline Pini silvestris in Austria. — Species omnino dubia, cfr. Lindau l. c.

19. Cladosporium arundinicola Berl. Riv. Patol. veget. IV (1895) 8418 p. 19, tab. 3, fig. 17. — Cæspitulis superficialibus compactiusculis, fulvo-olivaceis, demum subcrustaceis; hyphis fasciculatis, ramulosis plus v. minus nodulosis; conidiis in ramulis lateralibus acrogenis, cylindraceo-fusoideis, muriculatis, 1-3, raro 5 septatis, 20-26 × 6-8, apicalibus brevioribus, subcontinuis, 6-8 × 4.

Hab. in culmis putrescentibus Arundins Donacis, Avellino Ital. merid. — Quoad hujus speciei aliarumque affinium biologiam cfr. Berlese l. c.

20. Cladosporium æcidicola Thüm. — Syll. IV p. 368 — Diagnosis 8419 sequenti modo emendanda. Cfr. Sacc. in Ann. Mycol. VIII (1910) p. 346. — Cæspitibus effusis, atro-olivaceis, folia late occupantibus, amphigenis; conidiophoris ex hypostromate late effuso nigricante assurgentibus, subfasciculatis, filiformibus, leviter tortuosis, simplicibus, 2-3-septatis, olivaceis, sursum leviter tenuatis et pallidioribus, 50-65 × 4; conidiis oblongo-fusoideis, typice 1-septatis seu diblastis, 14-16 × 5,5-6, dilute olivaceis, levibus, rarius 2-3-septatis v. continuis.

Hab. in pag. inf. foliorum Euphorbiæ Cypearissiæ ab Aecidio Euphorbiæ deformatorum in Bavaria et Italia boreali (Thum. Speg. Massal.). — Diagnosis Thümeniana l. c. cum exemplaribus ipsius auctoris, nec non Spegazzinii et Massalongo minime conveniunt.

21. Cladosporium casei (Johan-Olsen) Sacc. et Trav. — Syll. XIX 8420 p. 296. — Dematium casei Johan. Ols., Centralbl. Bakter III (1897) p. 280, t. 4-5, f. 7-13. — Polymorphum; primo saccharomycetoideum amycelicum, cellulis 6-8 × 2,5 gemmantibus, hyalinis, demum myceliophorum: hyphis longis, filiformibus, septatis, sæpe in fasciculos connexis, v. radiantibus, parce ramosis (coloratis?) nunc conidia obovata v. ellipsoidea 5-6 × 2, subspicata generantibus, nunc in catenulas conidiorum subcylindraceorum 10 × 2 abeuntibus.

Hab. in case is in Norvegia.

22. Cladosporium fuligineum Bon. — Syll. IV p. 368. — Huc 8421 spectat Cladosporium Exobasidii Jaap, Verh. Bot. Ver. Prov. Brandenb II (1907) p. 29, teste Lindau Deutsch. Krypt. Fl. Pilze VIII p. 808, qui plurima loca et matrices indicat.

23. Cladosporium syphiliticum Hallier, Flora (1868) pag. 291-301, 8122 t. 3, f. 13 est species omnino obscura et vix Cladosporium.

24. Cladosporium zeylanicum Sacc. et Trott. — Ita vocetur Cl. sub- 8428

compactum Roum. et Karst. (1890). — Syll. X p. 603 — non Cl. subcompactum Sacc. — Syll. IV p. 361 (1886).

- PENOMYCES Giard, Sur les Cladosporiées entomophytes etc. in C. R. Acad. Sc. 21 Juin 1891 (Etym. penos tela et myces). Mycelium septatum, ramosum, brunneolum, corpus animalis indumento araneoso v. pannoso obducens. Conidiophora brevia, simplicia, conidio terminali continuo v. uniseptato prædita. Affine Polyrrhizio Giard quod quoque genus ad Dematieas prope Cladosporium locandum est.
- Penomyces telarius Giard, l. c., Guéguen Champ. paras. p. 257. 8424
   Corpore insecti indumento dense pannoso undique obducto; conidiis pro more continuis, oblongis, 14 ≈ 7.

Hab. in corpore Ragonychæ melanuræ (Coleopt.) et Phygadii Urticæ? (Hemipt.) in Gallia. — Animalcula vegetabilibus arcte adhærent et moriuntur. Habitus cladosporiaceus.

Penomyces Cantharidum Giard, l. c., Guéguen Champ. paras. 8425
 p. 257. — Corpore insecti mycelio pluricellulari, ramoso, rufescenti tecto; conidiis continuis v. 1-septatis, magnitudine variis, 4-16 μ. longis.

Hab. in corpore Telephori lividi (Coleopt.,) Beaune (Côte d'Or) Gallie. — Animalcula foliorum Coryli pag. inferiori mycelio adhærentia, corpore secus costam adpresso, prius forte Entomophthorâ quadam occisa.

- MYCELODERMA Ducomet, Recherch. sur le développ. de quelques champignons parasites à thalle subcuticulaire, Thèse Fac. Sc. Paris (1907) p. 119, fig. 1 et 2, et t. XI-XII (Etym. mycelium et derma, h. e. mycelium pachydermaticum). Thallus endophyticus et ectophyticus; mycelium superficiale reticulatum; hyphis brunneis, crassis, paucis, tunica crassa præditis; mycelium profundum inter cuticulam et epidermidem nidulans; conidia brunnea, ovoidea simplicia v. elongato-septata, in basidiis ampulliformibus lateraliter inserta; pycnidia (?) v. spermogonia, scutellata, ostiolata. Genus vere ambiguum.
- Myceloderma cuticulare Ducomet, l. c. p. 120. Mycelio super- 8426 ficiali 6 μ. c. cr., ampullis conidigenis 6-8 μ. long., basi contractis, c. 5 μ.; conidiis simplicibus, 8-10 ≠ 6-7, sæpe uni- v. biseptatis et tunc 13 μ. long. ad septa non constrictis; cystibus ca-

tenulatis 2-6-articulatis, articulis sphæroideis 6-9  $\mu$ . diam.; pycnidiis (?) scutellatis 40  $\mu$ . cr., 25  $\mu$ . alt.

Hab. in ramulis foliorum Quercus Suberis f. occidentalis in nemoribus Lot-et-Garonne Galliæ.

- PASSALORA Fries et Mont. Syll. IV p. 344, X p. 597, XI p. 617, XVIII p. 578.
- Passalora bacilligera (Mont.) Fr. Syll. IV, p. 345 fm. Al-8427 nobetulæ Jaap, Fungi sel. exs. n. 149 (1906); Verh. Bot. Ver. Prov. Brandenb. IL (1907) p. 28. Maculis subrotundis, non acute limitatis, superne flavo-brunneolis, inferne griseo-viridulis; cæspitulis hypophyllis, vix conspicuis; conidiophoris fasciculatis, continuis, non divisis, curvulis nodulosisque, 38-60 × 4,5-5; conidiis clavatis, medio septatis et constrictis, hyalinis, articulis subfusoideis acutiusculis, 42-50 × 5, articulo infero 3 μ. crasso.

Hab. in foliis Alni Alnobetulæ (= A. viridis) pr. Triberg in Silva nigra et M. Sempione (JAAP) et prope Lackenhof Austriæ (v. Höhnel).

- DIDYMARIOPSIS Speg. Myc. Argent. V, p. 424, in Anal. Mus. Nac. Buenos Aires XX (1910) (Etym. *Didymaria* et *opsis* facies). Est *Didymaria* hyphis olivaceis conidiisque hyalinis donata.
- 1. Didymariopsis cuphæicola Speg., l. c. p. 424, cum icon. Maculis 8428 amphigenis primo orbicularibus dein repandis, 2-5 mm. diam., fuscescentibus, subdeterminatis; cæspitulis amphigenis erumpentibus olivaceis, ex hyphis tenuibus 100-250 × 6, fuligineis, simplicibus, septulatis; conidiis sæpius subcylindraceis rarius subclavulatis utrinque rotundatis 14-20 × 5-6, primo continuis dein medio 1-septatis, non constrictis, hyalinis, eguttulatis, acrogenis, solitariis.

Hab. ad folia viva Cuphææ mesostemonis in dumetis pr. Metan Salta Argentina Amer. austr.

**SCOLECOTRICHUM** K. et S. — Syll. IV p. 347, X p. 599, XI p. 618, XIV p. 1078, XVI p. 1057, XVIII p. 581.

1. Scolecotrichum cladosporioideum R. Maire, Not. myc., Ann. Myc. 8429 IV (1906) p. 329. — Cæspitulis compactis, punctiformibus, atrobrunneis, erumpenti-superficialibus, in macula arida flavo-marginata sæpe circinatis, circ. 0,1-0,3 mm. diam., hyphis conidiophoris erectis, dense fasciculatis, brunneis, parce septatis, 100-150 ≈ 8-10, levibus, apice conidiferis pallidioribusque; conidiis sæpius acroge-

nis, flavo-brunneis, verrucosis, oblongis vel cylindraceis,  $23-42 \times 12-16$ , utrinque rotundatis, 1-2-septatis, ad septa haud vel paullulum constrictis.

Hab. in foliis Iridis fœtidissimæ, Tlemcen, les Cascades, Oran Algeriæ. — Conidiis verrucosis a Scol. graminis dignoscitur; multis notis cum gen. Cladosporio collidit.

2. Scolecotrichum graminis Fuck. — Syll. IV, p. 348 — var. nanum 8430 Saccardo, Not. Myc. VI, Ann. Myc. III (1905) p. 515. — A typo differt hyphis multo brevioribus, 30-50 × 4-5, conidiisque paullo minoribus, 30-32 × 6-6,5, utrisque olivaceo-fuligineis.

Hab. in foliis Dactylidis glomeratæ, Agordo, Belluno Ital bor. (D. Saccardo). — Var. brachypodum Speg., Myc. Arg. V, pag. 436, in An. Mus. Nac. Buenos Aires XX (1910). — A typo leniter recedens hyphis conidiferis conspicue brevioribus, 30-70 ≈ 5-8, continuis, olivaceis; conidiis acrogenis, solitariis, e cylindraceo-lanceolatis, 30-40 ≈ 8-12, primo continuis dein medio 1-septatis, non constrictis, pallide rufescentibus. — Vulgata ad folia languida Graminum Hordei jubati, Bromi unioloidis etc. in tota Argentina Amer. austr.

FUSICLADIUM Bon. — Syll. IV p. 345, X p. 597, XI p. 617, XIV p. 1077, XVI p. 1056, XVIII p. 579.

1. Fusicladium Pruni Ducomet, Rech. sur le développ. de quelques 8431 champign. parasites à thalle subcuticulaire, Thèse Fac. Sc. Paris (1907) pag. 137, tab. XIII-XIV. — Cæspitulis griseis v. brunneis, velutinis, in maculis vigentibus; mycelio subcuticulari, initio incolore, hyalino, dein brunneo; conidiophoris brunneis, simplicibus, erectis, solitariis, cylindraceis, basi contractis, apice laxe et irregulariter verrucosis, 1-2-septatis, 25-42 × 3,5-4,5; conidiis simplicibus, raro 1-septatis, fusoideo-oblongis, medio sæpe constrictis, brunneo-viridescentibus, 14-18 × 3,5-5.

Hab. in fructibus Pruni domesticæ var. «Ente», Villeneuve sur Lot Galliæ. — Fusicladio Cerasi (Rabh.) Sacc. affine.

2. Fusicladium heterosporum v. Höhn. Ann. Myc. III (1905) p. 337. — 8432 Maculis brunneis usque ad 3 cm. long., elongatis, minoribus internerviis, majoribus non acute marginatis et halone flavido cinctis sæpeque confluentibus; cæspitulis hypophyllis, confertis, ex stomatibus erumpentibus, non confluentibus, griseo-brunneis, 20-40 μ. latis; conidiophoris sæpius brevibus, cylindraceis, continuis, 28 × 5, subinde 60 × 5-6, 1-3-cellularibus, ramulis uno alteroye

auctis; conidiis acrogenis typice 2-cellularibus, rarius 3-4-cellularibus, pallide brunneolis, bicellularibus utrinque rotundatis, medio valde constrictis,  $22-32 \approx 9-14$ , tri-quadricellularibus cylindraceo-clavatis, leviter constrictis,  $36-40 \approx 8-12$ .

Hab. in foliis vivis Epilobii parviflori, Wiener Wald Austriæ (v. Höhnel). — Species inter Fusicladium, Scolecotrichum et Cercosporam ambigua.

3. Fusicladium Peucedani Syd. Ann. Myc. V (1907) p. 340. — Ma-8438 culis epiphyllis, brunneolis, orbicularibus vel irregularibus, 3-5 mm. diam.; cæspitulis hypophyllis, punctiformibus, nigricantibus, 75-150 μ. diam., in maculis plus vel minus dense dispositis; conidiophoris dense stipatis, paliformibus, e basi stromatica atrofuliginea bene evoluta orientibus, continuis, olivaceo-brunneis, 10-15 μ. longis; conidiis variæ magnitudinis, oblongis subinde anguste clavatis, circa medium 1-septatis et sæpe constrictis, 15-55 × 5-10, dilute olivaceis.

Hab. in foliis Peucedani decursivi, Tokyo Japoniæ (N. NAMBU).

4. Fusicladium consors Sacc., Notæ myc. VIII, Ann. Myc. IV (1906) 8434 pag. 491, tab. X, fig. 3. — Effusum, imperspicuum, brunneum; hyphis fertilibus hinc inde fasciculatis, indivisis, cylindraceis, basi nonnumquam bulbillosis, 25-30 × 4-5, fuligineis, sursum dilutioribus, obsolete 1-septatis, apice obtusulis et parce denticulatis; conidiis obelavato-fusoideis, rarius fusoideis, apice acutioribus, 1-septatis, non constrictis, 15-17 × 4, dilutissime fuligineis.

Hab. in caulibus emortuis Scabiosæ Succisæ, socia Didymosphæria perexigua, cujus est verisimiliter status conidiophorus, Meudon, Galliæ (Ludwig, comm. P. Hariot).

5. Fusicladium Fici Bacc., Funghi Eritr., Ann. Bot. v. IV (1906) 8435 p. 277. — Maculis orbicularibus amphigenis, supra pallidis et rubro-cinctis, subtus rufo-ferrugineis; cæspitulis amphigenis punctiformibus; hyphis fertilibus simplicibus, continuis, brevibus, fuscidulis, ad apicem pallidioribus; conidiis piriformibus, fuscidulis, septatis, 20 × 10.

Hab. in foliis Figure sp., Valle Catalaben, Mensa 1900 m. alt. in Erythræa (PAPPI).

6. Fusicladium Elasticæ Koord., Botan. Untersuch. Java (1907) p. 231, 8436 fig. 42. — Hyphis olivaceis, endophyllis, septatis; fertilibus sparsis, solitariis, erectis, pluriseptatis, olivaceis, apice subhyalinis et dichotome ramosis, c. 230 × 3 filiformibus; conidiis hyalinis, fusoi-

deo-oblongis v. subclavato-oblongis, utrinque rotundatis vel basi subacutis et apice rotundatis, medio uniseptatis, acrogenis, solitariis,  $10-15 \approx 2,5-3$ .

Hab. in foliis languidis vel in partibus foliorum emortuis Fici elasticæ, Penunggalan prov. Kedu Java (Koorders).

7. Fusicladium Hariotianum Sacc., in Ann. Mycol. VI (1908) p. 560. 8487 — Cæspitulis punctiformibus, nigricantibus, dense seriatis, epiphyllis, superficialibus, 125-130 μ. diam.; hyphis fertilibus dense fasciculatis, paliformibus, simplicibus, continuis, atro-olivaceis, 70 × 5,5-6, apice obtusulis; conidiis tereti-oblongis, basi truncatis, apice rotundatis, 1-septatis, non constrictis, 30 × 8, olivaceis.

Hab. in foliis languidis Glyceriæ Borreri prope Parisios (P. HARIOT).

- 8. Fusicladium radiosum (Lib.) J. Lind, Ann. Mycol. III (1905) p. 429, 8438

  Oidium radiosum Lib. Crypt. Ard. n. 285 (1834), Cladosporium

  Asteroma Fuck. Syll. IV, p. 357. Cfr. etiam Sacc. Funghi

  Ardenn. Libert. p. 24 (Malpighia 1888). Status ascophorus:

  Venturia Tremulæ Aderh.
- 9. Fusicladium saliciperda (All. et Tub.) J. Lind, Ann. Mycol. III, 8489 (1905) p. 430, Septoglæum saliciperdum All. et Tub. in Allesch.
  F. imp. VII, p. 617 Sacc. Syll. XIV, p. 1031. Status ascophorus: Venturia chlorospora (Ces.) Karst.
- 10. Fusicladium Eriobotryæ (Cav.), Sacc. Basiascum Eriobotryæ Cav. 8440
   Syll. X, p. 471. Hujus nomen novum Fusicladium melanconioides Ferraris, Ann. Mycol. VII (1909) p. 284, est supervacaneum nam nomen Cavaræ 1888 antecedit nomina F. pirinum var. Eriobotryæ Pegl. 1894 et F. dendriticum var. Eriobotryæ Scalia 1901.
- 11. Fusicladium Kaki Hori et Yoshino, Bot. Mag. Tokyo XIX (1905) 8441 p. (220) (japonice).

Hab. in foliis Diospyri Kaki in Japonia.

## POLYTHRINCIUM Kunze — Syll. IV p. 350.

1. Polythrincium Trifolii Kunze — Syll. IV p. 350 — var. platense 8442 Speg., Myc. Argent. V, p. 437, in An. Mus. Mac. Buenos Aires XX (1910). — Cæspitulis hypophyllis, minutis, gregariis subconfluentibusque, olivaceis; hyphis constipatis erectis subspiraliter tortis 50-70 × 6-7 fumoso-olivaceis, ad septa constrictis atque nigroannulatis, simplicibus; conidiis fumosis, obovatis v. biconicis, 16-18 × 12-14, 1-septatis non constrictis.

Hab. ad folia viva Trifolii platensis prope Lezama prov. Buenos Aires, Argentina Amer. austr.

2. Polythrincium Shiraianum P. Henn., Engl. Jahrb. XXXVII (1905) 8448 p. 165. — Maculis fuscis, rotundato-angulatis; cæspitulis epiphyllis minutis dense gregariis, atris; hyphis fasciculatis, ramosis, erectis, flexuosis, subtoruloso-septatis, 4-5 μ. cr., olivaceo-fuscis; conidiis acrogenis, ovoideis, granulatis, primo continuis, dein medio septatis, constrictiusculis, atro-olivaceis, 15-30 × 7-8.

Hab. in foliis Cercidophylli japonici, Nikko Japoniæ (Shirai). — A P. Trifolii maculis, hyphis conidiisque distinctum.

**HORMODENDRUM** Bon. — Syll. IV p. 310, X p. 591, XIV p. 1076, XVIII p. 581.

1. Hormodendrum obesum (v. Höhn.) Lindau Deut. Krypt. Fl. Pilze S444 I (1906) p. 702, Hormiactella obesa v. Höhn., Ann. Myc. III (1905) p. 556, cum ic. — Cæspitulis effusis, tenuibus, brunneo-nigricantibus, e conidiis albo-conspersis; hyphis rigidulis, crassiuscule tunicatis, diaphane atro-brunneis, irregulariter ramosis, intricatis, sursum pallidioribus, breve articulatis, 400-500  $\mu$ . alt., 14-16  $\mu$ . cr. (sterilibus 6-8  $\mu$ . tantum), sursum plus minus dichotomice ramosis, catenuligeris; conidiis inæqualiter globosis, doliiformibus v. cylindraceis,  $20 \times 14$ -20, breviter catenulatis, continuis, tenui-tunicatis, hyalinis.

Hab. in ramis putridis dejectis Fagi silvaticæ pr. Pressbaum Austriæ (v. Höнnel).

2. Hormodendrum Citri Briosi et Farn., Atti Ist. Bot. Pavia 9 (Extr. 8445 1906) pag. 30, tab. 1-11, pr. p. — Hyphis teretiusculo-fusoideis, simplicibus, septatis, brunneis, e mycelio repente ortis, sæpe 80-110 × 4,5-5; conidiis corymboso-catenulatis, ellipsoideis v. oblongis, brunneis, 6-8 × 4,5.

Hab. in fructibus Citri Limonis morbo s. d. ruggine bianca deturpatis, in Sicilia.

3. Hormodendrum griseum Hedge. Missouri Bot. Gard. (1906) p. 100, 8446 tab. 10, fig. 2. — Cæspitulis tomentosis, initio griseis, demum atris; hyphis sterilibus repentibus, crebre septatis, 3-10 μ. cr., subhyalinis; conidiophoris ascendentibus 200-800 × 3-4, sursum bis subverticillato-ramosis, ramulis (ramo-conidiis) ovato-oblongis, 1-3-septatis, 6-14 × 3-4; conidiis longe ramoso-catenulatis, in quoque catenula 8-10, ellipsoideis, fumoso-griseis, 3-6 × 2-4.

Hab. in ligno Liquidambar styracifluæ, Pini echi-Syll. fung. XXII (VII-1913) 87 natæ, Fraxini americanæ, Missouri Amer. bor. — Lignum infectum colore atro-griseo tingitur.

4. Hormodendrum resinæ Lindau, Rabenh. Krypt.-Fl. ed. II, Hypho-8447 myc. I (1906) p. 699. — Cæspitulis late effusis, indeterminatis, velutinis, brunneo-viridulis, sat laxis; hyphis sterilibus repentibus v. leviter ascendentibus, 4-4,5 μ. diam., parce ramosis, remote septatis, viridulo-brunneis, diaphanis; conidiophoris ex apice hypharum oriundis, rarius pleurogene, ascendentibus; crebriuscule septatis, sursum pallidioribus, 3,5-4 μ. diam.; ramis paucis alternis v. pluribus capitulatim confertis, brevissimis, apice catenuligeris; conidiis elliptico-fusoideis, utrinque obtuse tenuatis, viridi-brunneis. diaphanis, 5,5-7 × 3,5-4,5.

Hab. in resina Abietis excelsæ, Sachsenwald pr. Hamburg (JAAP).

5. Hormodendrum Hordei Bruhne — Syll. XIV, p. 1076 — var. par- 8448 visporum A. L. Smith, Trans. of Brit. Mycol. Soc. 1907, v. III (1908) p. 35, tab. I, fig. 2. — Hyphis sterilibus brunneis, repentibus; fertilibus erectis, septatis, simplicibus, circ. 200 μ. altis, verruculosis, apicibus capitula conidiorum ferentibus; conidiis primariis oblongis, brevibus, catenulatis, 6-10 × 3-4, in catenulas conidiorum minorum brunneorum globoso-cuboideorum, verruculosorum abeuntibus.

Hab. in charta uda, Southampton Angliæ (J. F. RAYER).

# DIPLOCOCCIUM Grove - Syll. IV p. 374, X p. 606.

1. Diplococcium cylindricum Jaap, in Lindau Kryptog. Fl. Deutschl. 8449 Hyphomycetes VIII (1907) pag. 841. — Cæspitulis diffusis, tenuibus, discretis, fumosis, pulveraceis, centro vero compactioribus, non acute limitatis, parum emergentibus et tunc vix conspicuis; mycelii hyphis rectiusculis, remote septatis, parce ramosis, atrobrunneis, fere impellucidis, apice subhyalinis et in catenulas ramosas conidiorum abeuntibus; conidiis cylindraceis. rectis, utrinque rotundatis, e viridulo subhyalinis, primo 1-cellularibus, dein 2-cellularibus grosseque biguttatis, 12-15 × 3.

Hab. in cortice ramorum putrescentium Pini silvestris pr. Triglitz, Brandenburg (JAAP).

FUMAGO Pers. — Syll. IV p. 547, XI p. 638, XIV p. 1099.

Fumago oosperma Speg., Fungi Paul., Rev. Mus. La Plata t. XV, 8450
 p. 43 (1908). — Latissime diffusa laxeque matrice adnata, sæpius

epiphylla, glabra, articulis hypharum quandoque subparenchymatice connexis angulato-subglobosis, grosse 1-2-guttulatis, quandoque subliberis, catenulatis, ellipsoideis 5-20  $\times$  5-10, grosse 1-2-guttulatis medio plus minusve coarctatis, fuligineis, levibus; conidiis hinc inde glomerulatis, pycnidia rudimentalia simulantibus, utrinque obtusiusculis 12-16  $\times$  6-8 subopace fuligineis.

Hab ad folia coriacea cujusdam in hortis Sao Paulo Brasilia (USTERI). — In eodem mycelio adsunt sæpe conidia altera sparsa bacillari-fusoidea utrinque attenuato-acutata,  $20-30 \approx 5$ , 3-septata, ad septum medium leniter constricta, hyalina.

PSEUDOFUMAGO Br. et Farn., in Atti Ist. bot. Pavia X (extr. 1906) p. 31 (Etym. pseudes falsus et Fumago). — Catenulæ v. ganglia cellulosa polymorpha, simplicia v. ramosa, raro fasciculata, sæpe primum hyalina v. pallide fusca, dein brunnea v. fuliginea. Cellulæ globosæ v. ellipsoideæ, leves v. asperulæ, continuæ, raro 1–2-septatæ. — Genus omnino obscurum.

1. Pseudofumago Citri Br. et Farn., l. c., tab. 1-11, p. p. — Chara- 8451 cteres generis.

 $\it Hab.$  in fructibus Citri Limonis morbo s. d.  $\it ruggine\ bianca$  deturpatis, in Sicilia. — Cellulæ 4-17 st 3-13. — An mera forma  $\it Fumaginis$ ?

#### Sect. 3. Phæophragmiæ.

STIGMINA Sacc. IV p. 394, XI p. 622, XIV p. 1083, XVI p. 1061, XVIII p. 581.

1. Stigmina xanthoxylicola Speg., Myc. Argent. V, p. 443, in Anal. 8452 Mus. Nac. Buenos Aires XX (1910). — Maculis majusculis determinatis repandulis, sæpius totum apicem foliorum occupantibus, amphigenis, sordide cinerescentibus; cæspitulis hypophyllis confertis superficialibus, subhemisphæricis 90-110 μ. diam., olivaceis; conidiis ellipsoideis v. obovatis, 20-28 × 12-18, sæpius transverse triseptatis, loculis 1 v. 2 septo altero longitudinali divisis, olivaceis, pedicello brevissimo, 10 × 4, mox deciduo hyalino fultis.

Hab. ad folia languida Fagaræ (Xanthoxyli) sp. cujusdam in silvis Puerto León Misiones Argentina Amer. austr.

Stigmina valdiviensis Speg., Fungi Chilenses (1910), p. 186, cum 8458
 icon. — Acervulis pusillis, 50-100 μ. diam., erumpenti-superficia-

libus, olivaceis, subiculo repente subgelatinoso efformatis; conidiis confertis erectis, cylindraceo-subfusoideis sæpius 7-septato-constrictulis, loculis olivaceis, extimis exceptis, hyalinis.

Hab. in foliis emortuis Libertiæ ixioidis in pratibus Ciudad de Valdivia Chile Amer. austr.

- CLASTEROSPORIUM Schw. Syll. IV p. 382, X p. 606, XI p. 621, XIV p. 1082, XVI p. 1060, XVIII p. 582.
- Clasterosporium Citri Mac Alpine, Fung. Diseas. Citrus, pag. 89, 8454
   t. 25, f. 123-124 (1899). Hyphis sterilibus repentibus, septatis, parce ramosis, pallide brunneis, circ. 3,5-4 μ. cr.; conidiis fusoideis, vermiculatis, flavido-brunneis, 8-septatis, 45 × 8, non v. vix constrictis.

Hab. in foliis languidis Citri Limonis, pr. Melbourne Australiæ.

2. Clasterosporium caulincola (Corda) Sacc. — Syll. IV, p. 393, X, 8455 p. 606 — var. pellucidum Grove, in Journ. of Bot. (1886) p. 12, tab. 267, fig. 1 (extr.) (Bactrodesmium). — Effusum, atrum; conidiis sessilibus, dense compactis, cylindricis, utrinque vix attenuatis v. etiam obtusis, 6-12-septatis, dilute olivaceis, pellucidis, 60-100 × 8-10.

Hab. in caule subherbaceo plantæ ignotæ, Sutton Coldfield Britanniæ.

3. Clasterosporium Bonordenii Sacc. — Syll. IV, pag. 385 — var. 8456 atrum (Schulz.) Sacc. — Syll. XIX, p. 304 — Macrosporium clavatum var. atrum Schulz. in Verh. zool.-bot. Ges. Wien (1870) p. 636, t. XIV, f. 2. — Gregarium, atrum; conidiophoris erectis, basi subinflatis, cylindraceis, fuligineis, conidia longitudine subæquantibus; conidiis fusoideis rectis v. leviter inæquilateris, apice obtuse attenuatis v. rotundatis, 8-10-septatis, non constrictis, fuligineis, articulo summo hyalino, 45-90 × 12-16.

Hab. in fragmentis ligneis Carpini Betuli in Hungaria.

4. Clasterosporium Elasticæ Koord., Botan. Untersuch. Java (1907) 8457 p. 232, fig. 43. — Hyphis repentibus saprogenis, flavo-brunneis, hinc inde conidia conoideo-attenuata, fusca, apice pallidiora 4-5-ptata 40-45 ≈ 6-9 gerentibus.

Hab. in cortice Fici elasticæ prope Purworrdjo prov. Kedu ins. Java (Koorders).

5. Clasterosporium javanicum Koord., Bot. Untersuch. Java (1907) 8458
 p. 232, fig. 44. — Mycelio effuso, fuligineo, parasitico; in maculis

irregularibus brunneis insidente; conidiis oblongis, fuscis, 2-3-septatis, utrinque obtusis, ad septa constrictis, 25-35 × 8-10.

Hab. in foliis vivis Fici elasticæ cultæ prope Pennunggalan prov. Kedu Java (Koorders).

6. Clasterosporium glanduliforme v. Höhnel, Fragm. z. Mykol., Sitzb. 8459 k. Ak. d. Wiss. Wien Bd. CXVI, Abt. I (1907) p. 152. — Hyphis sterilibus nullis; conidiophoris indivisis, rectis curvulisve, continuis v. spurie 1-2-septatis, deorsum brunneolis, 3-4 μ. cr., sursum sensim pallidioribus et usque ad 6-7 μ. cr., tenui-tunicatis, 30 μ. long., apice monosporis et, conidio decedente, denuo sporigeris, basi in discum crenulatum subcircularem productis; conidiis subglobosis 4-cellularibus, basi truncatis, vertice rotundatis, 12 × 10, cellula sup. nigricante, subhemisphærica, secunda subdisciformi brunnea, binis inferioribus fere hyalinis.

Hab. parasitice in hyphis Corticii coronati, Wienerwald Austriæ (v. Нöниег).

- PSEUDOCERCOSPORA Speg., Myc. Arg. V, p. 437, in An. Mus. Nac. Buenos Aires XX (1910) (Etym. pseudes falsus et Cercospora). Genus Hyphomycetum dematieum macronemeum phragmosporum, conidiis, pluriseptatis, catenulatis, a Septonemate vita biophila et conidiophoris longioribus distinctum.
- Pseudocercospora Vitis (Lév.) Speg., l. c. p. 438. Huc ducen-8460 dum est Septonema Vitis Lév. Syll. IV, p. 398.
   Hab. adde in hortis Tucuman Argentina.
- **SEPTONEMA** Corda Syll. IV p. 307, X p. 609, XI p. 622, XIV p. 1084, XVI p. 1062, XVIII p. 583.
- 1. Septonema orchidophilum Speg., Myc. Arg. V, pag. 438, in An. 8461 Mus. Nac. Buenos Aires XX (1910). Maculis nullis; acervulis minutis, punctiformibus, 80-120 μ. diam., compactiusculis, primo epidermide tectis dein nudis; conidiis ellipsoideis utrinque rotundatis, 10-15 ≈ 5, ad septa leniter constrictis, 10-15 ≈ 5, rectis v. vix inæquilateralibus, fuligineis.

Hab. ad scapos florales aridos Oncidii cujusdam, San Lorenzo prope Orán Jujuy Argentina Amer. austr.

Septonema smilacinum Speg., Myc. Arg. V, p. 439, in An. Mus. 8462
 Nac. Buenos Aires XX (1910). — Cæspitulis minutis, olivaceis, erumpentibus, dense gregariis, hemisphæricis, 100-150 μ. diam.;

conidiis e cylindraceo subfusoideis, utrinque truncatis,  $15-35 \approx 7-9$ , 1-4-septatis, ad septa non constrictis, fuligineis, eguttulatis.

Hab. vulgatum ad sarmenta arida subputrescentia Smilacis campestris in Parque Roca Tucumán Argent. Amer. austr.

CRYPTOCORYNEUM Fuck. — Syll. IV p. 395, X p. 608, XI p. 622, XVI p. 1062, XVIII p. 583.

1. Cryptocoryneum erumpens Saccardo, Not. Myc. VI, Ann. Myc. III 8463 (1905) p. 515. — Acervulis gregariis plerumque epiphyllis, diu epidermide tumidula nitida tectis, dein erumpentibus, pulvinatis, 200-300 μ. diam., basi hypostromate concavo excipulum dimidiatum fere formante, minute celluloso, fusco suffultis; conidiis paliformibus e pseudostromate oriundis, dense fasciculatis, sessilibus, apice rotundatis, plerumque 3-septatis, non constrictis, 30-32 × 4-5, dilute ochraceis.

Hab. in acubus Taxi baccatæ, Weimar Germaniæ (H. Die-DICKE). — Stirps ambigua ad Melanconiaceas vergens et ulterius inquirenda.

SPOROSCHISMA B. et Br. — Syll. IV p. 486, XVIII p. 582.

1. Sporoschisma juvenile Boud., Ic. Mycol. III, t. 589 (ser. I, p. 12) 8464 (1910). — Maculis velutinis longe lateque expansis ex hyphis sterilibus et conidiophoris formatis; hyphis fertilibus atro-fuligineis, 40-80 μ. longis, ad basim septatis, loculo supero inferne inflato et hic 20-25 μ. cr., cavis et conidiis hyalinis concatenatis et exsilientibus repletis; hyphis sterilibus dimidio brevioribus et gracilioribus, septatis, ad apicem pallidioribus; conidiis longe concatenatis; cylindricis, junioribus hyalinis, intus granulosis et continuis, maturis pallide fuligineis, triseptatis, apicibus rotundatis, 30-45 × 10-12.

Hab. ad basim caulium Angelicæ silvestris, Montmorency Galliæ.

2. Sporoschisma mirabile Berk. et Br. — Syll. IV, p. 486 — var. 8465 attenuatum Cavara, in Rev. Mycol. XI (1889) pag. 185, t. 88 bis, f. 6. — Effusum, nigrum, setulosum; hyphis sterilibus ascendentibus, cylindraceis, septatis, apice clavulatis, olivaceo-virentibus; conidiophoris continuis deorsum longe tenuatis, quasi stipitatis, sursum cylindraceis v. leviter inflatis, 250-300 ≈ 13-14; conidiis endogene catenulatim generatis, cylindraceis, utrinque truncatis, 3-septatis, brunneo-viriduiis, intus granulosis vel grosse guttulatis, 30-35 μ. longis.

Hab. in ligno putri in cellis Horti botanici, Pavia, Ital. bor.

3. Sporoschisma Juniperi Lind et Vleugel, Svensk Botan. Tidskr. 8466 Bd. II (1908) p. 388, fig 5, α, b. — Cæspitibus effusis, non limitatis, atris, nitidis, crustaceis; hyphis conidiophoris sæpius fasciculos irregulares coremiiformes formantibus, cylindraceis, membrana tenui præditis, sub microscopio flavo-viridibus (ut citrus immaturus), basi 15 μ. ceterum 9 μ. cr., simplicibus, in parte inferiore protoplasmate granuloso repletis; conidiis in interiore partis superioris hypharum catenulatim formatis et dein exsilientibus, dilute flavo-viridibus vel subhyalinis, quoad longitudinem valde variabilibus, 16-45 μ., typice 40 μ. long., constanter 8 μ. latis, septis 3-12, typice 9-10 præditis, ad septa constrictis.

Hab. ad corticem Juniperi communis vetustæ, Umea Sueciæ (J. VLEUGEL).

**ACROTHECIUM** Preuss — Syll. IV p. 483, X p. 662, XIV p. 1089, XVIII p. 584.

Acrothecium Tulasnei Sacc., Pyrenophoræ relicinæ st. conid. Tul. 8467
Scl. Carp. III, p. 259, t. XXIX, f. 1 et 2 (1865). — Cæspitulosum v. subsparsum, atrum; hyphis conidiferis, erectis, filiformibus, septatis, fuligineis, basi paullo incrassatis apice obtuse denticulatis v. brevissime ramulosis; conidiis capitulatis acrogenis, oblongo-ellipsoideis, utrinque rotundatis, 3- raro 4-septatis, non constrictis, atroolivaceis, 30 ≈ 13.

Hab. in culmo Avenæ socio st. ascoph. Pyrenopeziza relicina, in Gallia (Tulasne et Delacroix). — Subinde hyphæ conidiophoræ ex ipsis peritheciis oriuntur.

2. Acrothecium Bambusæ v. Höhn., Stzb. k. Ak. d. Wissensch. Wien 8468 CXVIII, Abt. I (1909) p. 335. — Hyphis conidiophoris simplicibus erectis, atro-brunneis, opacis, sursum pallidioribus, 200 × 6-7; conidiis acrogenis, capitatis, elliptico-ovoideis, 4-cellularibus, cellulis tribus inferioribus brunneolis, summa subhyalina, ima cellula ceteris duplo longiore et basi apiculata.

Hab. in vaginis emortuis Bambusæ spec. Buitenzorg Javæ, socio Acanthostigmate Bambusæ cujus videtur st. conidiophorus.

3. Acrothecium Krombholzii Sacc. et Traverso — Syll. XIX, p. 14 — 8469 Dactylium atrum Krombh. Abb. u. Beschr. t. VI, f. 29 (1831), non Acroth. atrum (Preuss) Sacc. — Hyphis filiformibus sursum tenuato-cuspidatis, continuis, atris, apice conidia 3-5 capitata, dis-

creta, oblongo-clavata, apice rotundata, sub-4-septata, non constricta, atra gerentibus.

Hab. ad ligna putrida in Germania, — Krombholz l. c. p. 84, n. 29 pro hac species citat Link, sed hic auctor habet tantum Triposporium nigrum Link.

4. Acrothecium bicolor (Cost.) Sacc., Pleurophragmium bicolor Cost., 8470 Muced. simpl. f. 70 (1888). — Hyphis conidiophoris erectis, filiformibus, septatis, brunneis, apice et sub apice denticulato-sporigeris, pallidioribus, 4 μ. cr.; conidiis in denticulis insertis, oblongis, basi acutiusculis, apice rotundatis, 16 × 4, plerumque 3-septatis, subhyalinis, coacervatis dilute coloratis, non v. vix constrictis, capitulum oblongum pallidum formantibus.

Hab. ad truncos? in Gallia. — Conidia acropleurogena etiam in aliis generis speciebus occurrunt, hinc novum genus Costantinii non satis validum videtur.

SPONDYLOCLADIUM Martius — Syll. IV p. 482, X p. 661, XVIII p. 583.

Spondylocladium xylogenum A. L. Smith, Trans. Brit. Mycol. Soc. 8471 1907, v. III (1908) p. 37, tab. I, fig. 5. — Hyphis sterilibus repentibus, fere hyalinis; fertilibus erectis, plerumque simplicibus v. raro ad basim furcatis, septatis, olivaceo-brunneis, apice subhyalinis, 150 μ. long.; conidiis ex hyphis verticillatim ortis, sessilibus, brunneis, opacis, subclavato-oblongis, 3-septatis, 15-25 × 8-11.

Hab. in lignis vetustis, Shropshire Britanniæ (W. B. Allen).
2. Spondylocladium atro-virens Harz — Syll. IV, p. 483 — Appel 8472

et Laubert in Arb. K. Biol. Anst. Land - Forstwirts., V (1907) p. 439. — Huc spectant *Phellomyces sclerotiophorus* Frank et Spondylocladium abietinum (Zukal) Sacc. — Syll. X, p. 662.

**HETEROSPORIUM** Kl. — Syll. IV p. 480, X p. 657, XI p. 630, XIV p. 1088, XVI p. 1064, XVIII p. 585.

Heterosporium Auriculæ Cooke, Fung. Pests p. 57, tab. 4, f. 71 8478 (1906), Massee, Dis. of cult. Plants p. 498 (1910). — Cæspitulis 8-4 in quoque folio, viridi-olivaceis, extensis; conidiophoris prælongis, tenuibus, sæpe ramosis, 4-5 μ. cr.; conidiis elongatis, variæ longitudinis, 14-20 v 5-6, sæpius 1-septatis, griseo-olivaceis.

Hab. in Primulæ Auriculæ cultæ foliis quæ denique vitiantur et perforantur in Britannia.

- 2. Heterosporium ferox Bubák, Fungi imperf. exsicc. (1907) n. 444, 8474 Hedwigia XLVII (1908) p. 363; Lindau, in Rabenh. Kryptogamenfl. IX Abt. p. 83 et p. 798. Mycelio endophyllo; cæspitulis amphigenis, effusis, velutinis, olivaceis; conidiophoris erumpentibus, initio fasciculatis, erectis, demum divaricatis, simplicibus, raro ramulo laterali auctis, laxe septatis, fumoso-griseis, geniculatoflexis, 200-250 × 6-8; conidiis oblongis vel oblongo-cylindraceis, utrinque rotundatis, rectis, raro curvulis, læte griseo-flavidis, 2-3-raro 1-5-septatis, extus spinuloso-granulosis, 23-78 × 7,5-8, pro more 38-58 μ. longis.
  - Hab. in foliis Ranunculi arvensis quem vexat, deformat et occidit, in Horto botanico Tabor Bohemiæ.
- 3. Heterosporium Berberidis Ranojevic, Ann. Mycol. VIII (1910) 8475 p. 399. Plagulis in substrato griseo decolorato crebre distributis, brunneo-nigris; conidiophoris ex hyphis noduloso-intricatis subepidermicis orientibus, numerosis, divergentibus, rectis v. curvis, simplicibus, raro leniter ramosis, nodosis, brunneo-fuligineis, dein brunneis et præcipue apicem versus septis pluribus transversis, crassis præditis, apice attenuatis, pallidioribus, usque ad 210 μ. long., 5,5-9,5 μ. cr.; conidiis primum ellipsoideis, unicellularibus, dein elongatis, utrinque rotundatis v. leniter attenuatis, conidiophoris concoloribus, 1-3 raro 4 septis transv. præditis, ibique non v. leniter constrictis, 9,5-22 × 4,5-9,5, crebre verrucosis.

Hab. in ramis vivis Berberidis vulgaris prope Belgrad Serbia.

- 4. Heterosporium Cytisi Ranojevic, Ann. Mycol. VIII (1910) p. 398. 8476

   Plagulis ramicolis effusis confertisque in furcis ramorum insidentibus, brunneis; conidiophoris ex stomatibus exeuntibus, cæspitosis, simplicibus, septatis, nodulosis, flavo-brunneis, apice pallidioribus, 76-200 × 5,5-7,5; conidiis ellipsoideis, ovoideis, elongatis, continuis v. 1-3-septatis, flavo-brunneis, verruculosis, 9-27 × 4,5-9,5.

  Hab. in ramis siccis Cytisi elongati, Avala Serbia.
- 5. Heterosporium? Vellosoanum Speg., Myc. Arg. V, p. 442, in An. 8477 Mu. Nac. Buenos Aires XX (1910). Maculis amphigenis sparsis € suborbicularibus, 1-3 mm. diam., indeterminatis, fuscescentibus; compitulis sæpius epiphyllis, plus minusve confertis, e globoso de pressis, 75-80 ≈ 50, ex hyphis subtoruloso-tortuosis 30-50 ≈ 6-7 fusco-fumosis efformatis; conidiis clavulatis, sæpius triseptatis, 50-60 ≈ 12, rufescentibus, obsolete asperulis.

Hab. vulgata ad folia viva Mimosæ Vellosianæ in sepibus Orán Jujuy Argentina Amer. austr.

6. Heterosporium Opuntiæ Lindau, Krypt. Fl. Deutschl. etc. Hypho-8478 myc. IX (1907) pag. 84. — Cæspitulis effusis, breviter velutinis, brunneo-nigricantibus; conidiophoris confertis, subflaccidis et fortiter hinc inde curvatis, inæqualiter septatis, atro-brunneis, 200-500 × 5,5-8, intermixtis hyphis usque ad 20 μ. cr., sursum pallidioribus, tenuatis; conidiis terminalibus, oblongis, utrinque rotundatis, rectis, brunneis, diaphanis, 2-3-septatis, raro 1- v. 4-septatis, minute spinulosis, 23-35 × 11-16.

Hab. in fructibus Opuntiæ sp. in Horto botanico Berolinensi Germaniæ (Hennings).

7. Heterosporium Amsoniæ Kab. et Bub., Hedwigia XLVII (1908) 8479 p. 362. — Maculis epiphyllis sparsis, parvis, rotundatis, rubidis, sæpe indistinctis, immarginatis quandoque confluentibus; acervulis hypophyllis, parvis, crebris, nigris, sæpe confluentibus; conidiophoris arcte fasciculatis, ascendentibus, rectis v. curvulis, cylindraceis, apice angustioribus, apicem versus hinc inde valde inflatis, non denticulatis,  $500 \times 4$ -6, parce septatis, æqualiter brunneo-olivaceis, raro apice pallidioribus; conidiis ellipsoideis, breviter cylindraceis v. ellipsoideo-fusoideis, 25- $40 \times 10$ -15, primum unilocularibus parvis, maturis 1-3-transverse septatis, flavo-olivaceis v. olivaceo-viridibus, crebre verruculosis.

Hab. in foliis dejectis Amsoniæ angustifoliæ pr. Turnau Bohemia (Kabat)

8. Heterosporium Symphoricarpi Ranojevic, Ann. Mycol. VIII (1910) 8480 p. 398. — Plagulis in greges elongatos crebre distributis, brunneis; conidiophoris cæspitosis, cylindraceis, simplicibus, septatis, nodulosis, pallide flavo-brunneis, apice subangustatis et pallidioribus, rectis curvulisve, 34-120 × 6-10; conidiis elongato-ellipsoideis, utrinque rotundatis v. subangustatis, 1-3-septatis, raro ad septa subconstrictis; conidiophoris concoloribus, verruculosis, 11,5-25 × 6,5-9,5.

Hab. in ramis vivis Symphoricarpi racemosi, Belgrad Serbia.

9. Heterosporium Syringæ Klebahn, Krankh. des Flieders, pag. 11, 8481 fig. 5, p. 12-16, f. 6-16, p. 36, f. 29 (1909). — Maculis irregularibus, latiusculis, postremo griseo-brunneis; conidiophoris ex mycelio profunde immerso, vage ramoso ascendentibus erumpentibusque, cylindraceis, irregulariter tortuosis v. subrectis, septatis, brunneis, 70-130 × 5-6, simplicibus, apice acutatis v. obtusis an-

gulosisque; conidiis versiformibus ex ellipsoideo tereti-oblongis, initio continuis v. 1-septatis, maturis 3-septatis, minute verruculosis, plerumque  $20 \approx 7$ , rarius  $9 \approx 4,5$  v.  $32 \approx 13$ , olivaceo-brunneis.

Hab. in foliis Syringæ vulgaris cui valde damnosum, Hamburg Germaniæ.

10. Heterosporium Paulsenii Rostr., Bot. Tidsskr. XXVIII (1907) 8482 p. 218. — Cæspitulis gregariis, velutinis, aterrimis, caulicolis; hyphis fuscis, septatis, levibus; conidiis obscure fuligineis, 1-5-septatis v. continuis, grosse verruculosis, 20-45 × 10-13.

Hab. in caulibus Macrotomiæ euchromæ, ex Borraginaceis, Pamir, Asia.

11. Heterosporium Fraxini Ferdinands. et Winge, Bot. Tidsskr. 8483 XXVIII (1907) pag. 256, f. 8. — Cæspitulis nigris, congregatis; hyphis incremento sympodiali flexuosis, sparsis, ramosis, septatis, brunneolis, basi stromatica; conidiis acrogenis (et pleurogenis, ex icone?) breviter cylindraceis, utrinque rotundatis, primo continuis, dein 1-3-septatis, griseolis, plerumque 17 × 5-6, maximis circ. 25 × 7-10, muriculatis.

Hab. ad fructus (samaras) nondum dejectos Fraxini excelsioris pr. Vaerloese Selandiæ.

12. Heterosporium Tupæ Speg., Fungi Chilenses (1910) p. 188, cum 8484 icon. — Maculis non v. vix manifestis sed eximie bullosis, 5-15 mm. diam.; cæspitulis hypophyllis confertis olivaceis pusillis 50-70 μ. diam., ex hyphis cylindraceis bicellularibus levibus 20-25 ε 7-8 efformatis; conidiis ellipsoideis v. obovatis didymis 1-3-septatis, ad septum medium valde constrictis, fulvellis, dense minuteque papilloso-asperulis, 20-40 ε 10-14.

Hab. in foliis vivis Lobeliæ Bridgesi prope Ciudad de Valdivia Chile Amer. austr. — Secundum Cl. Auct. forsan forma Cercosporæ? Tupæ Speg.

13. Hetrosporium Lobeliæ Speg., Fungi Chilenses (1910) p. 188, cum 8485 icon. — Maculis indeterminatis amphigenis pallescentibus planiusculis, 2-10 mm. diam.; cæspitulis hypophyllis confertis minutis ex 3-4 hyphis cylindraceis tortuosulis 2-4-septatis olivaceis 50 × 4-5 efformatis; conidiis cylindraceis 1-4-cellularibus, ad septa non constrictis, fuligineis, dense minuteque ruguloso-asperulis, 15-30 × 8.

Hab. frequens in foliis vivis Lobeliæ salicifoliæ, Cerro Alegre de Valparaiso Chile Amer. austr.

Heterosporium Centaureæ Ranojevic, Ann. Mycol. VIII (1910) 8486
 p. 398. — Plagulis crebris, validis, brunneo-fuligineis; conidiophoris

e basi pseudostromatica cæspitose productis, numerosis, simplicibus, septatis, nodulosis, flavo-brunneis, apice angustatis et pallidioribus v. etiam hyalinis, usque ad 248 μ. long. 5,5-8,5 μ. cr.; conidiis pallide flavis, primum ellipsoideis v. ovoideis, unicellularibus, dein elongatis, conoideis, utrinque rotundatis, 2-4-locularibus, 9,5-23 × 5,5-9,5, minute verrucosis.

Hab. in ramis emortuis siccis Centaureæ spinulosæ pr. Belgrad Serbia.

15. Heterosporium Ephedræ Potebnia, Myc. St., Ann. Myc. v. V (1907) 8487 pag. 21 et Trav. Soc. Nat. Univ. Kharkov XXXXIII (1907). — Conidiophoris nodulosis 80-120 × 4-5, pallide brunneis, in cæspitulis divergentibus congregatis; conidiis concoloribus, episporio verruculoso præditis, 12-16 × 5-7, unilocularibus vel inconspicue 1-3-septatis.

Hab. in ramis Ephedræ vulgaris, Kharkov, Rossia.

16. Heterosporium repandum Ferd. et Winge, Botanisk Tidsskr. 8488 XXIX (1908) p. 23, tab. II, fig. 13. — Cæspitulis singulis dense gregatis, intricato-confluentibus, indeque faciem mycelii ramulos late obtegentis præbentibus, atris; conidiophoris simplicibus vel parce ramosis, septatis, incremento sympodiali flexuosis, usque ad 250 × 5-6, fuligineo-fuscis; conidiis cylindraceis, utrinque rotundatis, constanter 3-septatis, ad septa non constrictis, 21-28 × 5,5-7, paucissimis paululo majoribus v. minoribus, nonnumquam guttulatis, fuligineis, distincte verrucosis.

Hab. ad ramulos siccos indeterm. in insula St. Thomas Indiæ occ. (RAUNKIAER).

17. Heterosporium asperatum Massee, Amer. Monthl. Microsc. Journ. 8489 XIV (1893) p. 33, t. I. — Maculis pallidis; cæspitulis maculiformibus atris; conidiophoris e mycelio innato erumpentibus, fasciculatis, bacillaribus, basi inflatis, septato-nodulosis, brunneis, sursum pallidioribus, intus guttulatis, levibus, 120-150 × 8-10; conidiis plerumque binis acrogenis, oblongis, maturis 3-septato-constrictis, distincte asperulis, 17-19 × 8 (ex icone), subinde apice conidiolo auctis.

Hab. in foliis Convallariæ, Smilacinæ, Smilacis, Polygonati et Majanthemi, quibus valde noxium in Amer. bor.

— Quoad formas metageneticas speciei cfr. Massee I.

18. Heterosporium Allii-Cepæ Ranojevic, Ann. Mycol. VIII (1910) 8490 p. 399. — Maculis secus fibras totam superficiem scaporum occupantibus, elongatis, 2,5 × 1 cm., griseis, cyanescenti-mar ginatis,

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confluentibus; conidiophoris cæspitosis ex stomatibus exeuntibus, simplicibus, dein septatis, irregularibus, nodosis, flavo-brunneis, usque ad 198  $\mu$ . long., 7,5-20  $\mu$ . cr.; conidiis flavo-brunneis, verruculis crebre tectis, unicellularibus, dein piriformibus, conoideis v. elongato-ellipsoideis, 32-48  $\approx$  9,5-19 v. elongatis, 1-2 raro 3 septis transversis præditis, rectis quandoque medio angustatis biscoctiformibus, ad septum non vel leniter constrictis, 44-76  $\approx$  9,5-20 (raro usque ad 101  $\approx$  25).

Hab. in scapis languidis Allii Cepæ, Veliko Oraschje Serbia.

19. Heterosporium graminum Rostr., Plantenpatologi p. 607 (1902), 8491
Lindau, Deutsch. Krypt. Fl. Pilze IX, p. 77. — Conidiophoris brunneis, nodulosis; conidiis oblongis, brunneis, spinulosis, 3-4-septatis.

Hab. in Dactylide glomerata et Tritico vulgari in Dania. — Diagnosis omnino imperfecta. Observante cl. I. Lind, an idem ac Cladosporium graminum Corda?

**HELMINTHOSPORIUM** Link — Syll. IV p. 402, X p. 610, XI 623, XIV p. 1084, XVI p. 1062, XVIII p. 587.

1. Helminthosporium valdivianum Speg., Fungi Chilenses (1910) p. 192, 8492 cum icon. — Erumpens clathrato-effusum velutinum nigrum; hyphis sterilibus erectis simplicibus 10-15-septatis, 300-500 × 10, olivaceis; conidiis clavulatis sæpius 7-septato-constrictulis, 45-50 × 10-12, olivaceis, loculis extimis hyalinis.

Hab. in ramis emortuis subputrescentibus Sophoræ microphyllæ prope Ciudad de Valdivia Chile Amer. austr. — Helm. folliculato affinis species.

2. Helminthosporium Albizziæ Petch, Ann. R. Bot. Gard. Peradenyia 8498 IV, Pt. V (1909) p. 306. — Maculis minutis nigris 0,5 mm. diam., ex cæspitulis plurimis areolam albidam centralem cingentibus formatis, hypophyllis; conidiophoris basi coalescentibus, 70 × 7 plerumque prope basim uniseptatis, nodulosis, fuligineis; conidiis acrogenis, clavatis, utrinque rotundatis, 42-56 × 12, ima basi 4 μ. cr., minute verrucosis, fuligineis, cellula terminali pallidiore, rectis v. curvatis, 3-4-septatis. septis 3-4 μ. cr., tunica 2-3 μ. cr., ad septa non constrictis.

Hab. in foliis Albizziæ Lebbok, Peradenyia Ceylon.

3. Helminthosporium Yerbæ Speg., Anal. Mus. Nac. Buenos Aires 8494 t. XVII (1908) p. 140. — Plagulis difformibus effusis 1-25 mm. diam., sæpe confluentibus, nigris; hyphis fuligineis erectis pellucidis apice acutiusculis basi non v. vix subbulbosulis, 150-400  $\times$  8-10, 3-7-septatis; conidiis acrogenis quandoque cylindraceo-ellipsoideis utrinque obtusiusculis,  $40-60 \times 12-14$ , quandoque elongatis, subhirudiniformibus,  $180-200 \times 14-15$ , pellucidis, semper fuligineis, ad septa non constrictis.

Hab. ad ramos dejectos putrescentes Ilicis paraguariensis

in silvis circa San Pedro Misiones Reip. Argentinæ.

4. Helminthosporium Theæ Bernard, Bull. Dep. Agric. Néerland. XI 8495 (1907) p. 30, f. 50-51. — Effusum, velutinum, nigricans; conidiophoris erectis saturate brunneis, septatis, 300-350 × 10-12; conidiis obclavato-piriformibus, 4-5-locularibus, pro more 4-locularibus basi apiculo (hyphæ apice?) auctis, sursum conspicue tenuatis acutisque, loculis binis inferioribus, brunneis superioribus multo angustioribus, subhyalinis, totis 20-22 × 7-8 (basi).

Hab. in ramulis, Stilbi Thæe ope jam necatis, Theæ assamicæ, Java. — Dimensiones ex iconibus petitæ.

5. Helminthosporium ubangiense P. Henn., Mission Em. Laurent 8496 fasc. III (1906) p. 318 — Cæspitulis orbicularibus v. effusis amphigenis, atro-crustaceis, hyphis fasciculatis erectis, rigidis, subsimplicibus, atro-castaneis, septatis, 3-6 μ. cr. v. repentibus, ramosis, 2-3 μ. cr.; conidiis fusoideis, atro-fuscis, apice acutiusculis, 3-4-septatis, 30-60 × 5-8.

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Hab. in foliis Coffee, Ubangi Africa trop.

6. Helminthosporium coarctatum Riess, in Eisenach, Uebersicht der <sup>8497</sup> bisher in d. Umg. v. Cassel berb. Pilze (1878) pag. 17 (nomen nudum).

Hab. in caulibus Pisi sativi pr. Cassel Germaniæ.

7. Helminthosporium densum Riess l. c. (nomen nudum).

Hab. in caulibus emortuis Conii maculati pr. Cassel Germaniæ.

8. Helminthosporium Grewiæ P. Henn., in Fl. du Bas- et Moy. Congo, 8499 Ann. Mus. du Congo v. II, fasc. II (1907) pag. 105. — Maculis explanatis subpallidis v. obsoletis; cæspitulis hypophyllis effusis, atro-fuscis; hyphis fusciculatis, septatis, fuscis, 90-120 × 5-8; conidiis fusoideis, 2-4 septatis, 35-45 × 8-10, fuscidulis.

Hab. in foliis Grewiæ sp., Kisantu Congo Africæ (VANDERYST).

9. Helminthosporium Viticis Syd., Hedwigia XLIX, (1909) p. 83. — 8500 Maculis præcipue epiphyllis, orbicularibus, <sup>1</sup>/<sub>3</sub>-<sup>2</sup>/<sub>3</sub> cm. latis, griseobrunneis; cæspitulis hypophyllis, minutissimis, in tomento folii

nidulantibus, olivaceo-fuligineis; hyphis tenuibus, septatis, usque ad 80  $\mu$ . long. 2-3  $\mu$ . latis, ramosis, fuscis; conidiis cylindraceis utrinque leniter attenuatis, rectis v. lenissime curvulis, 1-3-septatis, non constrictis, fuligineis, 12-20  $\approx$  2,5-3,5.

 ${\it Hab.}$  in foliis Viticis flaventis, Para America austr. (C. F.  ${\it Baker}$ ).

10. Helminthosporium Chrysobalani P. Henn., in Fl. du Bas- et Moy. 8501 Congo, v. II, fasc. II (1907) p. 105. — Maculis late effusis; cæspitulis amphigenis plerumque hypophyllis, gregarie effusis, atris; hyphis fasciculatis, rigidis, sæpe flexuosis, erectis, guttulatis, v. septatis, fuscis, 3-3,5 μ. cr.; conidiis fusoideis utrinque acutiusculis, 2-4-septatis, guttulatis, fusco-atris, 25-50 × 3-4.

Hab. in foliis Chrysobalani, Congolo Congo Africa (VANDERYST).

Helminthosporium Heveæ Petch, Ann. Roy. Bot. Gard. Perade-8502 nyia Pt. I (1906) p. 8. — Epiphyllum, sistens maculas primum minutas purpureas deinde albidas, semi-translucidas, orbiculares, 1-5 mm. diam. brunneo-marginatas; hyphis sparsis, olivaceis, simplicibus, 80-100 μ. longis; conidiis cymbiformibus, 8-11-septatis, brunneis, 100-120 × 15-18.

Hab. in foliis et plantulis Heveæ brasiliensis, quas valde vexat et foliis orbat, Ceylon Indiæ.

12. Helminthosporium inæquale Shear, Bull. Torr. Bot. Club XXXIV 8508 (1907) p. 307; Cranberry Diseas. tab. 5, fig. 4-9. — Hyphis sterilibus effusis decumbentibus, ramosissimis, atro-brunneis, interdum 3-12, in fasciculos cohærentibus; conidiophoris ascendentibus v. suberectis, septatis, longitudine ludibundis, 6-8 μ. cr.; conidiis acro-pleurogenis, inæquilateris, v. curvis, 3-5-cellularibus, crasse tunicatis, brunneis, 22-32 × 11-14, cellula centrali ceteris ampliore et tumidula.

Hab. tantum ex cultura in pulpa baccarum Vaccinii vitiati, New Jersey Amer. bor. — Ex cultura evolvuntur formæ sclerotioideæ erectæ, firmæ, interdum ramosæ, demum quoque conidia proferentes.

13. Helminthosporium orthospermum Sacc. et Fairm., Saccardo, Miscom. Amer. novi, Journ. of Myc. v. XII (1906) p. 50. — Late effusum, tenuiter velutinum, opace nigrum; hyphis sterilibus repentibus parcis; fertilibus seu conidiophoris erectis, simplicibus, interdum fasciculatis, rectis, 3-4-septatis, non constrictis, 50-60 × 5 fuligineis; conidiis cylindraceis, apice rotundatis, basi ima co-

nico-truncatis, rectis,  $60-80 \times 10-12$ , rarius usque ad 110  $\mu$ . long., 12-14-septatis, non constrictis, septis binis summis approximatis, fuligineis.

Hab. in ligno putrescente (quercino?), Lyndonville, N. Y., Amer. bor. (FAIRMAN). — Subaffine Helm. folliculato sed distinctissimum conidiophoris multo brevioribus et conidiis multo longioribus.

14. Helminthosporium Elasticæ Koord., Bot. Unter. Java (1907) p. 233, 8505 fig. 45. — Hyphis gregariis, strictis, solitariis v. rarissime binis, fuligineis, remote septatis, articulatis, rectis v. curvulis, simplicibus rarissime ramosis, plerumque 200-250 × 8-10 rarius usque ad 500-600 × 10; conidiis oblongo-fusoideis v. cylindraceis, 70-80 × 16-18, sursum attenuatis, basi rotundatis, crasse (4 μ.) tunicatis, plerumque 6-9-septatis, pallide olivaceis, rectis v. curvulis.

Hab. in foliis emortuis Fici elasticæ prope Purworedjo prov. Kedu Java, sept. 1905 (Koorders).

15. Helminthosporium kwangense P, Henn., in Fl. du Bas- et Moy. 8506
Congo in Ann. Mus. du Congo, v. II, fasc. III (1908) pag. 231.
— Cæspitulis hypophyllis, late effusis, ochraceo-fuscidulis, crustaceo-velutinis; hyphis repentibus ramosis, septatis, aureo-brunneis fuscescentibus, 4-8 μ. crassis; conidiis clavatis, vertice obtuso-rotundatis, 2-5-septatis, haud constrictis, 30-65 × 15-20.

Hab. in foliis arboris cuiusdam, Kisantu, Congo Africæ (VAN-DERYST). — Socia adest Parodiella kwangensis P. Henn.

16. Helminthosporium incurvatum Ch. Bernard, Bull. Dept. Agric. 8507 Indes Néerland. II (1906) p. 31, t. I partim et t. II, f. 1-6. — Effusum tomentosum, saprogenum; hyphis erectis, laxis, rigidulis, ad basim subbulbosis, simplicibus, 6-11-septatis, 250-320 × 6-8; conidiis maximis terminalibus, fusiformibus, incurvatis, apice obtusiusculis, ad septa non v. vix constrictis, levibus, pallide fuligineis, 7-12-septatis, non constrictis, 110-150 × 19-20, episporio crasso.

Hab. in foliis Cocoës nuciferæ a Pestalozzia Palmarum necatis, in ins. Java orient. — Affine, ut videtur, Helm. gigasporo. De hac Pestalozzia cfr. dissertationem et icones cl. Bernard l. c.

17. Helminthosporium Cyperi Bacc., Funghi Eritr., Ann. Bot. v. IV 8508 (1906) p. 277. — Hyphis fertilibus gregariis, amphigenis, laxis, plus minus orbiculatim dispositis in macula pallida, rectis vel

subflexuosis, fuscidulis, apice pallidiore ac attenuato; conidiis fuscideis, fuscidulis, 5-8-septatis,  $78 \approx 9$ .

Hab. in Cypero dichostachyde, Mai-Flungi Amasen Erythrææ (PAPPI).

18. Helminthosporium bdellomorphum Speg. Fungi Chilenses (1910) 8509 p. 191, cum icon. — Late effusum, velutinum, atrum; hyphis sterilibus erectis simplicibus 5-10-septatis, 50-150 × 6-8, fuligineis; conidiis hirudiniformibus, 10-25-septatis, ad septa non v. leviter constrictis, 60-150 × 10-14, subopacis fuligineis levibus.

Hab. frequens in culmis emortuis subputrescentibus Chusqueæ valdiviensis, Bahia de Corral Cerro Caracol de Concepcion Chile Amer. austr.

19. Helminthosporium ustilaginoideum P. Henn., in Fl. du Bas- et 8510 Moy. Congo, Ann. Mus. du Congo, v. II, fasc. II (1907) p. 104.
— Cæspitulis in ovariis, ea destruentibus deformantibusque, subglobosis, compactis, atris; hyphis subramosis fuscidulis, 3-3,5 μ. cr.; conidiis cylindraceis v. subfusoideis, obtusis, 1-5-septatis, fuscis, 10-50 ≥ 3,5-4,5,

Hab. in floribus Panici (? spicati), Sanso et Kisantu, Congo, maj., jun. 1906 (VANDERYST).

20. Helminthosporium Tritici-repentis Diedicke Aufzähl. Erfurts Miscomyc. (1910) p. 101, Centralbl. Bakt. II, Abl. XI, p. 56. — Ab Helm. gramineo notis biologicis, ut videtur, tantum distinguitur.

Hab. in foliis Tritici repentis pr. Erfurt Germaniæ. — Cfr. Lindau Deutsch. Krypt. Fl. Pilze IX p. 36.

21. Helminthosporium Avenæ-pratensis Diedicke l. c. p. 101. — Mycelio 8512 subepidermico, matricem nigricante; conidiophoris solitariis v. fasciculatim approximatis, septatis, atro-castaneis, rectis, prope apicem inæqualiter geniculatis et hinc inde flexis ibique papillas sporigeras gerentibus, 300 × 8-11; conidiis cylindraceis v. obclavatis primo læte dein saturate brunneis, utrinque pallidioribus 5-11-septatis, 70-107 × 16-21, membrana sat tenui demum vero crassissima et impellucida.

Hab. in vaginis inferioribus arescentibus Avenæ pratensis, interdum socia Tetraploa aristata pr. Erfurt Germaniæ.

22. Helminthosporium Avenæ-sativæ (Briosi et Cav.) Lindau Deutsch. 8513
Krypt. Fl. Pilze IX, p. 35 Helm. teres var. Avenæ sativæ Br. et Cav. Funghi parass. ess. N. 80 c. ic. (1889), Helm. Avenæ Eidam in Der Landw. XXVII p. 509 (1891). — Maculis subrosyll. fung. XXII (VII-1913)

tundis, non striiformibus, ceteris notis Helm. teretis, conidiis raro paullo crassioribus.

Hab. in foliis Avenæ sativæ, in Italia, Germania, Dania.

23. Helminthosporium Bromi Diedicke, Centralbl. f. Bakter. Parasi-8514 tenk. etc. 2 Abt. XI (1903) p. 56; Krieger, Fungi sax. n. 1941; Sydow, Myc. germ. n. 445. — Parasiticum; maculis subrotundis v. oblongis, non striiformibus; conidiophoris et conidiis ut in Helm. terete.

Hab. in foliis Bromi inermis, Königstein Saxoniæ (KRIEGER), Bromi asperi pr. Erfurt (DIEDICKE). -- Cf. Lindau, Deut. Krypt Fl. Pilze IX p. 36.

24. Helminthosporium Eragrostidis P. Henn., in Fl. du Bas- et Moy. 8515 Congo, in Ann. Mus. du Congo, v. II, fasc. III (1908) p. 231. — Cæspitulis in spicis effusis, atris, subvelutinis; hyphis fasciculatis septatis, inflatis, flavido-fuscidulis, 4-7 μ. cr.; conidiis clavatis v. fusoideis, obtusiusculis, 2-4-septatis, flavido-fuscidulis, 30-70 × 10-15.

Hab. in glumis Eragrostidis sp. Dembo Congo, jun. 1906 (VANDERYST).

25. Helminthosporium Oryzæ Miyabe et Hori, Bot. Mag. Tokyo, XIX 8516 (1905) p, 220 (japonice).

Hab. in foliis Oryzæ sativæ in Japonia.

26. Helminthosporium Cynodontis Marignoni, Micromiceti di Schio, 8517 Schio (1909) p. 27, cum icone. — Effusum, atro-olivaceum v. fuligineum; conidiophoris aggregatis, laxis, simplicibus, parce septatis, tortuosis, 80-150 × 6-7; conidiis elongatis, utrinque rotundatis plerumque octo-septatis, fuligineis, 60-75 × 12-14.

Hab. in foliis siccis Cynodontis Dactyli, prope Schio Italiæ bor.

STEMPHYLIOMMA Sacc. et Trav. — Syll. XX p. 886 (1911) (Etym. Stemphylium et omma aspectus) — Stemphyliopsis Speg., Fungi Chilenses (1910) p. 193, non A. L. Smith — Hyphæ repentes dense lanoso-intertextæ, ramosæ, olivaceæ; conidia acrogena transverse pluri-septata. — Est Helminthosporium hyphis repentibus ramosisque donatum, v. Stemphylium phæophragmium.

1. Stemphyliomma valparadisiacum Speg., Sacc. et Trav. l. c. Stem-8518 phyliopsis valparadisiaca Speg. Fungi Chilenses (1910) p. 193 cum icon. — Superficiale late effusum, gossypinulum, olivaceum; hyphis gracilibus, 2-3 µ. cr., multiseptatis, sterilibus repentibus flexuosis,

fertilibus erectiusculis plus minusve circinatis; conidiis acrogenis solitariis ellipsoideis v. clavulatis, 3-septatis, ad septa constrictis,  $20-22 \approx 9-10$ , opace nigris, loculo supremo excepto hyalino.

Hab. frequens in foliis emortuis subputrescentibus Puyæ chilensis, Cerro Alegre de Valparaiso et Puyæ cæruleæ Cerro San Cristobal de Santiago Chile Amer. austr.

BRACHYSPORIUM Sacc. — Syll, IV p. 423, X p. 617, XI p. 624, XIV p. 1087, XVIII p. 592.

Brachysporium kerguelense P. Henn., Deutsche Südpolar. Exped. 8519 Bd. VIII (1906) Extr. p. 16. — Cæspitulis effusis, atris; hyphis fasciculatis, rigidis, atro-rufis, rectis vel flexuosis, 3-4 μ. cr., simplicibus v. subramosis; conidiis acrogenis, clavatis, atris, primo 1- dein 4-septatis, apice obtusis, 10-18 ≈ 5-7.

Hab. in caulibus emortuis decorticatis Acænæ ascendentis in insul. Kerguelen (Werth).

2. Brachysporium Warneckeanum P. Henn., Engl. Jahrb. XXXVIII 8520 (1905) p. 118. — Maculis fuscidulis v. obsoletis; acervulis rotundatis v. confluenti-effusis, ochraceo-ferrugineis, compactiusculis, velutinis; hyphis septatis, sæpe confluentibus, 5-8 μ. cr., ochraceis, granulatis; conidiis cylindraceis v. clavatis, apice obtuse rotundatis, primo continuis, dein 1-3-septatis, paulo constrictis, flavo-ochraceo-brunneis, sæpe granulatis, 50-65 × 15-20.

Hab. in foliis Euphorbiaceæ cujusdam, Amani, Usambara orient. Africæ (WARNECKE).

3. Brachysporium Pini-insularis P. Henn., Hedwigia XLVII (1908) 8521 p. 264. — Cæspitulis gregarie sparsis minutis, atris v. effusis; hyphis fasciculatis, septatis, fuscis, 2-3 μ. latis; conidiis ellipsoideis, 2-septatis, atro-fuscis, 10-12 × 6-7,

Hab. in foliis Pini insularis, Luzon, Benguet, Baguio Ins. Philippin. (Merrill).

4. Brachysporium torulosum Syd., Hedwigia XLIX (1909) pag. 83. 8522 — Cæspitulis hypophyllis, effusis, irregularibus, olivaceo-brunneis; hyphis fasciculatis, simplicibus, rectis, erectis, multiseptatis, eximie torulosis, fusco-brunneis, usque ad 175 μ. longis, 6-8 μ. cr., ad nodos usque ad 14 μ. crassis; conidiis late clavatis, apice rotundatis, basi attenuatis, 3-5-septatis, non constrictis, levibus, fusco-olivaceis, 35-60 × 13-20 μ.

Hab. in foliis emortuis Musæ sapientum, Para, America austr. (C. F. BAEKER).

5. Brachysporium Eragrostidis P. Henn., in Fl. du Bas- et Moy. 8528 Congo, in Ann. Mus. du Congo, v. II, fasc. III (1908) p. 230. — Cæspitulis in spicis sparsis, atris, floccosis; hyphis fasciculatis simplicibus, brunneis, 40-60 × 3-5; conidiis ovoideis v. late fusoideis, obtusiusculis, 3-septatis, cellulis mediis olivaceo-fuscis, cellulis extimis pallidioribus, 15-23 × 10-15.

Hab in glumis Eragrostidis Chapellieri Nees, Dembo

Congo Africæ (VANDERYST).

NAPICLADIUM Thüm. — Syll. IV p. 481, X p. 660, XI p. 631, XVI p. 1065, XVIII p. 594.

Napicladium Ononidis (Auersw.) Sacc., Notæ Myc. VIII, Ann. 8524
 Myc. v. IV (1906) p. 494, tab. X, fig. 16. — Exosporium Ononidis Auersw. — Syll. IV p. 757 (nomen) — Cercospora Ononidis v. Höhn. Ann. Mycol. III (1905) p. 339.

Hab. in foliis vivis Ononidis repentis, quæ ob pycnidia subjecta creberrima tunc inde nigrescunt, Meudon Galliæ (Ludwa). Ob conidia crassa et proportione brevia, nempe 25 × 7, rarius 28 × 7-8, species ad gen. Napicladium aptius ducenda videtur quam ad Cercosporam. Perithecia adhuc immatura occurrunt; probabiliter ad Stigmateæ species pertinentia.

2. Napicladium Fumago Speg., Fungi Chilenses (1910) p. 190, cum 8525 icon. — ? Syn. Cladosporium Fumago Mont. in Gay, Fl. chil. VIII, p. 32, non Lk. — Tenuissime effusum, matrici arctiuscule adnatum, fuligineum; hyphis parce ramulosis, torulosis, articulis 15-20 × 14; conidiis fusoideis 100-120 × 17-18, olivaceis, 9-11-septato-constrictis.

Hab. in foliis vivis Eugeniæ v. Myrti, in silvaticis Bahia de Corral, Chile Amer. austr.

3. Napicladium rufescens Spegazz., Fungi Paulist., Rev. Mus. La 8526 Plata t. XV, p. 44. (1908) — Plagulis arcte matrici adnatis, 1-5 mm. diam., maculis nullis, ambitu fimbriatulo-evanescentibus; hyphis rectis v. angulato-geniculatis, 50·100 × 6, 1-5-septatis, ferrugineis; conidiis acro-pleurogenis rectis v. flexuosulis 30-150 × 5, primo multiguttulatis dein pluriseptatis, apice altero leniter incrassatis, obtusis, altero attenuatis acutiusculis levibus.

Hab. ad folia viva Eugeniæ cujusdam in hortis Spiranga Brasilia (USTEBI). — Species Napicladio Myrtacearum Speg. sat affinis sed bene distincta, ad Cercosporam nonnihil vergens.

4. Napicladium cucurbiticola Speg., Myc. Argent. V p. 443, in An. 8527

Mus. Nac. Buenos Aires XX (1910). — Maculis nullis v. obsoletissimis; hyphis repentibus ramulosis, 5 µ. cr., parce septulatis plagulas hypophyllas olivaceas subfumagineas efficientibus; conidiis cylindraceis rectis v. leniter curvulis utrinque subrotundatis 20-100 × 6, sæpius pluri-septatis ad septa non v. lenissime constrictulis (an catenulatis?) chlorinulis.

Hab. ad folia viva Cayaponia citrullifolia in sepibus prope Tucumán Argentina Amer. austr.

5. Napicladium asclepiadinum Speg. Myc Argent. V p. 442, in An. 8528 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis v. pallescentibus indeterminatis, 5-10 mm. diam., sæpius bullosis; hyphis repentibus, 5 μ. cr., olivaceis, plagulas hypophyllas olivaceas subcladosporiaceas efficientibus, dense patuleque ramulosis; conidiis subclavulato-elongatis, rectis v. leniter curvulis, 20-60 > 5, sæpius pluriseptatis, ad septa non v. lenissime constrictulis, chlorinulis.

Hab. ad folia viva Philibertiæ rotatæ in dumetis Tucumán Argentina Amer. austr.

6. Napicladium Celtidis Cavara, in Briosi e Cav. Funghi parass. n. 420 8529 (1908). — Hypophyllum, maculas olivaceas, velutinas, suborbiculares v. angulosas efficiens; cæspitulis subepidermicis, erumpentibus, compactis; conidiophoris brevibus, validis, superne obtusis, fasciculatis, conidium subæquantibus; conidiis valde heteromorphis, globulosis, ovalibus, clavulatis, simplicibus v. cylindraceis. rectis curvulisve, 1-3-septatis, levibus, fusco-olivaceis, 12-19 » 7 - 9.

Hab. in foliis vivis, que necantur, Celtidis latifolie, in Horto botanico, Catania, Sicilia (CAVARA).

7. Napicladium Elasticæ Koord., Botan. Untersuch. Java (1907) p. 234, 8530 fig. 46. — Mycelio effuso; hyphis fertilibus 10.12 × 3, simplicibus, subolivaceis, phyllogenis; conidiis acrogenis, solitariis, oblongis, lævibus, fuligineis, biseptatis, 15-16 × 5-5,5, utrinque rotundatis v. truncatis.

Hab. in foliis vivis Fici elasticæ prope Purworedjo Loano prov. Kedu Java (Koorders).

8. Napicladium testaceum Spegazz., Fungi Paulist., Rev. Mus. La 8531 Plata t. XV p. 44 (1908). — Plagulis arctiuscule ad hypophyllum matrici adnatis, subcrassiusculis 2-10 mm. diam., subvelutinis ambitu repandulis v. confluendo difformibus; thallo tenuissimo membranaceo submucoso obscure parenchymatico flavidulo; hyphis rectiusculis v. flexuosis ferrugineis 150-400 × 6.8 lævibus plurisepta-

tis; conidiis rectis, apice altero attenuatis minuteque subtruncatis  $50-60 \approx 15$ , ad septa non constrictis.

Hab. ad folia coriacea arbusculæ cujusdam ignotæ in hortis circa Sao Paulo, Brasilia (USTERI). — Inter hyphas adsunt sæpe sclerotia (perithecia immatura?) numerosa globosa 80-150 μ. diam., ferruginea glabra, carnoso-parenchymatica.

9. Napicladium? valdivianum Speg., Fungi Chilenses (1910) p. 191. 8532

 Cæspitulis erumpentibus, linearibus 0,5-1,5 mm. long., 100-250
 μ. lat., olivaceis; hyphis rectis constipatis, majusculis, sursum attenuatis continuis, subopacis, fuligineis, 20-80 × 5-10; conidiis acrogenis elongato-ellipsoideis, basi attenuato-acutatis, sæpius abruptiuscule incurvatis, 25-30 × 6-8, 1-2-3-septatis, non constrictis, hyalinis.

Hab. frequens in foliis vaginisque vivis Hierochloæ utriculatæ prope Ciudad de Valdivia Chile Amer. austr.

**DENDRYPHIUM** Wallr. — Syll. IV p. 487, X p. 662, XI p. 631, XIV p. 1089, XVIII p. 593.

Dendryphium Pini v. Höhnel, Fragm. z. Mykol., Sitzb. k. Ak. 8533 d. Wiss. Wien, Bd. CXVI, Abt. I (1907) p. 153. — Cæspitulis minutis, velutinis, nigricanti-griseis; hyphis sterilibus vix conspicuis; conidiophoris erectis, 200-400 × 4, æqualibus, diaphane griseis, violaceo-tinctis, tenui-tunicatis, septatis, levibus, ex articulis 25-35 μ. longis formatis, superne ramulis lateralibus, plerumque oppositis brevibus, apice catenuligeris; conidiis breviter catenulatis, cylindraceis utrinque, rotundatis, 2-4-septatis, utplurimum 4-septatis, 16 × 5,5-6.

Hab. in cortice putrescente Pini silvestris, Steinberg, Wienerwald Austriæ (v. Höhnel).

# BRACHYCLADIUM Corda — Syll. IV p. 489.

1. Brachycladium ramosum Bainier, Bull. Soc. Myc. Fr. XXIV 8584 (1908) p. 80, tab. VI, f. 1-15. — Mycelio copioso, valde ramoso, subpannoso; conidiophoris ascendentibus, confertis, filiformibus, parce septatis, variæ longitudinis, apice irregulariter ramulosolobulatis; conidiis laxe capitatis v. breviter spicatis, oblongis, irregularibus, apice obtusioribus, 25-30 ≥ 11-14, brunneis, 3-4-septatis, non constrictis.

Hab. in caule emortuo Urticæ in Gallia. — Mycelium cultum edit postremo sclerotia columnaria nigra, 4-5 mm. alt., 160-210 cr., ex quibus conidiophora iterum evolvuntur.

2. Brachycladium spiciferum Bainier, Bull. Soc. Myc. Fr. XXIV 8535 (1908) p. 81, tab. VII, fig. 11-26. — Mycelio copioso, subpannoso, ramosissimo; conidiophoris confertis parce septatis, simplicibus v. parce ramosis, sursum longo tractu flexuosis nodulosisque; conidiis e nodulis nascentibus, longiuscule spicatis, ellipsoideis v. obovatis, utrinque rotundatis, 3-septatis, non constrictis, crasse 4-guttulatis, fuligineo-olivaceis, 30-36 × 11-14.

Hab. in fregmentis ligneis udis in Gallia.

3. Brachycladium spicatum Bainier, Bull. Soc Myc. Fr. XXIV (1908) 8586 p. 82, tab. VII, fig. 1-10. — Ab affini Brachycladio spicifero dignoscitur conidiis brevius spicatis et plerumque conspicue longioribus, 40-42 × 11-14, prætereaque loco.

Hab. in fimo vaccino in Gallia.

## Sect. 4. Phæodictyæ.

STIGMELLA Lév. — Syll. IV p. 507, X p. 667, XI p. 633, XIV p. 1091, XVI p. 1076. XVIII p. 612.

1. Stigmella scitula Syd. in Theissen, Ann. Mycol. VII (1909) p. 343. 8587 — Conidiis in pagina inferiore foliorum vivorum æqualiter laxe gregariis, solitariis, punctiformibus, nigris, ellipsoideo-piriformibus, utrinque rotundatis, 28-38 × 25-28, triseptatis septoque unico longitudinali divisis, non v. vix constrictis, sub microscopio atroviolaceis, opacis; hyphis conidiophoris simplicibus, erectis, 1-2-septatis, hyalinis, 80-90 × 3 1/2-4.

Hab. in foliis vivis Bignoniace & sp., Sao Leopoldo Rio Grande do Sul, Brasilia. — Stigm. Uleanæ Sacc. et Syd. proxima, magnitudine vero conidiorum diversa.

CONIOTHECIUM Corda — Syll. IV p. 508, X p. 668, XI p. 633, XIV p. 1091, XVI p. 1076, XVIII p. 613.

Coniothecium arachideum Lucks, Centralbl. f. Bakter. etc. II, 8538
 Abt. XXXIII (1909) p. 642, tab. I-III. — Conidiis moniliformiter dispositis, primo cylindraceis demum doliiformibus, postremo incrassatis et septato-clathratis, atro-brunneis, fere moriformibus.

Hab. in leguminibus Arachidis hypogææ in Germania late diffusum. — Seminum farina vitiata fit animalibus, quæ ea cibantur, perniciosa.

2. Coniothecium Rhois Sacc. et Trott. n. sp. — Cæspitulis minutis- 8539

simis vix visibilibus laxe gregariis inter fibrillas ligni dealbatas nidulantibus denique erumpentibus, nigris; conidiis laxiusculis, subglobosis vel subcylindraceis rectis v. curvatis, plerumque transverse 1-3-septato-constrictulis, loculis 1-2 sæpe etiam longitudinaliter 1 septatis,  $10 \times 9$  v.  $15-18 \times 5-10$ , obscure brunneis.

Hab. in ramulis emortuis sed adhuc stantibus Rhois Oxyacanthæ, M. Mergheb prope Homs Tripolitania Africæ bor. — Con. applanato Sacc. affine; distinguitur acervulis punctiformibus inter fibrillas nidulantibus vix conspicuis, socio Hyalothyridio.

3. Coniothecium platense Speg. Myc. Argent. V, p. 445, in An. 8540 Mus. Nac. Buenos Aires XX (1910). — Cæspitulis sparsis v. laxe gregariis erumpentibus superficialibus compactiusculis, subhysterioideis, 200-500 μ. diam., atro-olivaceis; conidiis constipatis subcatenulatis, subcuboideis, 2-8-cellularibus, 14-20 × 7-14, sæpius sarciniformibus, cellulis cuboideis, 6-8 μ. diam., grosse 1-nucleatis, olivaceis.

Hab. ad palos decorticatos putrescentes Eucalypti globuli La Plata Argentina Amer. austr.

4. Coniothecium Eryngii Moesz, Gomb. Büdap. I, (1909) p. 25, t. III, 8541 fig. 12 Bot. Közlem. — Cæspitulis dense gregariis, primo epidermide tectis deim erumpentibus, fuligineo-atris, c. 70 μ. diam., 33-270 μ. long.; conidiis fuscis, multiglomerulatis, subglobosis v. angulatis, crasse tunicatis, 13-14 × 8-10, glabris.

Hab. in caulibus emortuis Eryngii campestris prope Budapest Hungariæ. — A Con. Heraclei cellulis numerosis, nec 4-12, præcipue differt.

5. Coniothecium Rhododendri Bubak in Handel Mazzetti Bot. Reise 8542 Pont. Randgebrig. in Ann. Naturhist Hofmus. Wien, XXIII (1909) p. 107. — Cæspitulis hypophyllis, tenuibus, atris; conidiis initio singularibus v. breviter (2-3) catenulatis, deinde irregulariter sarciniformibus; conidiis globosis v. ovoideis, 4-7 μ. diam., crasse tunicatis, glabris, obscure brunneis.

Hab. in pagina inferiore foliorum Rhododendri caucasici, in montibus ponticis Anatoliæ.

6. Coniothecium radians Sace., Ann. Mycol. VI (1908) p. 563, — 8548 Minutum, disciforme, erumpens inter pycnidia *Phomæ frigidæ* (parasitice?) oriens, nigrum; hyphis e centro radiantibus cylindraceis, varie septatis, nucleatisque, ad septa quædam constrictis, in cellulas sporomorphas, modo simplices, modo biloculares, modo

3-4-loculares (*Triphragmii* ad instar) abeuntibus, fuligineis; articulis 7-15 µ. diam.

Hab. in ramis junioribus Populi Tremulæ frigore, ut videtur, necatis, socia *Phoma frigida*, Rüdnitz pr. Bernau Germaniæ, Majo 1907 (H. Sydow).

Coniothecium Abietis Lindau, in Rabeuh. Krypt. Fi. Pilze IX, 8544 p. 170 (1908). — Cæspitulis punctiformibus, tenuibus, nitidulis, brunneo-nigris, subsolitariis v. paucis confluentibus; glomerulis subglobulosis, 30-45 μ. diam.; articulis ex oblongo ovoideis v. subsphæricis, 5-7 μ. diam.

Hab. in pag. inferiore Abietis albæ pr. Gersfeld in Rhöngebirge, Germania (JAAP).

8. Coniothecium argentinense Speg., Myc. Arg. V, p. 445, in An. 8545 Mus. Nac. Buenos Aires XX (1910). — Cæspitulis dense gregariis compactiusculis, plagulas crustiformes effusas, 5-20 mm. diam., efformantibus; hyphis repentibus gracilibus, dense tortuoso-ramulosis, 15-30 × 4.5, crebre septulatis subopacis fuligineis; conidiis e difformibus subglobosis, 15-25 μ. diam., e cellulis 3-7 radiantibus conflatis, eguttulatis, atris, subopacis, levibus.

Hab. ad truncos cariosos in silva Santa Catalina prope Buenos Aires Argentina Amer. austr.

9. Coniothecium Anaptychiæ Lindau Krypt. Fl. Pilze IX p. 169, 8546 (1908). — Tenue, nigrum, thalli partes vetustas æqualiter obducens; hyphis nullis visis; conidiis globoso-ovoideis v. subangulosis, atro-brunneis, fere impellucidis 5-7 μ. diam., 2, 4 v. pluribus in glomerulos connexis.

Hab. in thallo Anaptychiæ ciliaris, Triglitz, Brandenburg (JAAP). — A Con. lichenicola omnino distinctum.

10. Coniothecium gonorrhoicum Hallier, Flora (1868) p. 292, tab. III, 8547 fig. 8 et 15. — Stirps omnino dubia-

11. Coniothecium syphiliticum Hallier, ibid p. 294, tab. III, fig. 11 8548 et 14. — Stirps omnino dubia.

12. Coniothecium stilesianum Riv. Parass. veg. p. 427, t. 4 f. 101, 8549 (1873). — Stirps omnino dubia.

SPEIRA Corda - Syll. IV p. 514, X p. 671, XI p. 634.

Speira chilensis Speg., Fungi Chilenses (1910) p. 194, cum icon. 8550
 — Maculis stromaticis amphigenis, epidermide parenchymateque innatis, irregulariter angulosis, 1-5 mm. diam. nigris, planis, centro setuloso-hirsutis, ambitu glabris; setulis 1-2,5 mm. long. 6-14

 $\mu$ . cr., conidiis inter setulas nidulantibus obovatis, e catenulis 2-6 rectis coalescenibus olivaceis, 6-9-torulosis efformatis, 20-25  $\approx$  4-5, pedicello communi brevi crassiusculoque suffultis.

Hab. in foliis dejectis subputrescentibus Ætoxici punctati in silvaticis Cerro Caracol de Concepción Chile Amer. austr. —

Ob setulas intermixtas a typo desciscit.

DICTYOSPORIUM Corda - Syll. IV p. 513, X p. 670.

1. Dictyosporium Yerbæ Speg., Anal. Mus. Nac. Buenos Aires t. XVII 8551 (1909) p. 138. — Acervulis matrici sordide infuscata insidentibus, sæpius laxe gregariis globoso-depressis 75-100 μ. diam., nigris; conidiis 5-10 in quoque acervulo dense constipatis, ovatis v. obovatis, utrinque obtusis 20-30 × 20-25, sæpe medio subcoarctatulis, subopace olivaceis, 24-32-loculigeris, pedicello vix evoluto hyalino obrupte radicatis.

Hab. in schidis ligneis subputrescentibus Ilicis paraguariensis, prope San Pedro Misiones in Rep. Argentina.

**SPORODESMIUM** Link — Syll. IV p. 497, X p. 665, XI p. 632, XIV p. 1090, XVI p. 1075, XVIII p. 615.

1. Sporodesmium Cucumis Niessl, in J. Paul, Verh. naturf. Ver. in 8552 Brünn XLVII, Extr. p. 27. — Effusum, nigrum; conidiis oblonge ovatis, subpiriformibus, obtusis, interdum parum curvatis, 45-60 ≥ 15-18, muriformibus, seu 4-7 transverse, 1-2 longit. septatis, stipite brevi.

Hab. in Cucurbita Pepone, Schönberg, Moravia.

Sporodesmium pluriseptatum (K. et H.) Peck, N. Y. St. Mus. Bull. 8558
 131 (1909) pag. 27. — Ita distinguatur et decatur Sporodesm. mucosum var. pluriseptatum Karst. et Har. — Syll. X p. 667.
 Hab. in fructibus Cucurbitæ etiam in America.

3. Sporodesmium Cinchonæ Koord., Botan. Untersuch., (1907) p. 235, 8554 fig. 46. — Mycelio parasitico intracellulari, septato; conidiis acrogenis subsolitariis, in radicum cellulis inordinate dispositis, prima juventute hyalinis v. pallide olivaceis v. fuscis, continuis, dein aterrimis, oblongis v. irregularibus, plerumque 30-45 × 14-21 usque ad 50-64 × 15-18, multicellularibus.

Hab. in cortice radicum Cinchonæ sp. ab Heterodera radicicola plus minusve infectis, prope Anggrong-Gondok prov. Kedu, Java (Koorders).

4. Sporodesmium Lycii Niessl, var. major Potebnia, Myc. St. Ann. 8555

Myc. v. V (1907) pag. 22, fig. 43 et Trav. Soc. Nat. Univ. Kharkov XXXXIII (1907). — Hyphis parallelis, pseudostromatice congestis; sporulis elongatis, brunneo-fuligineis, 45-60 × 15-20, 4-6-septatis leviter constrictis, raro longitudinaliter 1-5-septatis.

Hab. in ramis siccis Lycii barbari, socia Didymosphæ-

ria massarioide var. majore Kharkov, Rossia.

5. Sporodesmium Scorzoneræ Aderh., Arb. k. Gesundh. Amt. III 8556 (1903) p. 439 cum icon. — Maculis amphigenis, subrotundis, 1-3 mm. diam., flavo-brunneis, sanguineo-marginatis, confluentibus; conidiophoris brevibus, 6-7 μ. cr. curvis; conidiis obclavatis, apice longe productis basi rotundatis, 10-12-septatis et longitrorsum 1-2-partitis, parce constrictis, flavo-melleis, subinde fumoso-brunneis, sursum pallidioribus, 50-75 ≈ 13,5-16,5, cum processu apicali 2-2,5 crasso 185 μ. longis.

Hab. in foliis caulibusque Scorzoneræ hispanicæ, prov. Proskau et pr. Münster, Germania (ADERHOLD). — Fungillus Scorzoneræ valde noxius.

6. Sporodesmium carpineum Schulz. v. Mügg. Vert. zool. bot. Ge-8557 sellsch. Wien (1870) p. 635, tab. 14, fig. 1. — Gregarium, atrum; hyphis sterilibus, parcis, repentibus, subhyalinis, hinc inde conidiophora filiformia, tortuosa, conidia subæquantia v. breviora emittentibus; conidiis inter setulas crebras, filiformes, brunneas erectas apice tumidulas subhyalinas interseminatis, ellipsoideis v. oblongoellipsoideis, 7-9-septatis crebroque muriformibus, initio subhyalinis, dein fulvescentibus, demum atro-fuligineis, ad septa leniter constrictis, 28-56 × 14-24.

Hab. in fragmentis ligneis Carpini Betuli in Hungaria.
Ob setulas copiosas inter conidia inspersas potius Septosporii species.

7. Sporodesmium Vogelianum Syd., Ann. Myc. (1910) p. 493, — Cæ- 8558 spitulis sub epidermide sitis eamque elevantibus et tandem longitudinaliter disrumpentibus, c. 0,50 mm. longis, atris, denique subsuperficialibus et confluendo majoribus; conidiis, ovato-oblongis clavulatis, 3-4-septatis usque, ad omnia septa constrictis, cellulis 2-3 septo longitudinali divisis, flavo-brunneis, 20-38 × 13-19, pedicello hyalino, continuo v. 1-2-septato crasso, usque ad 35 μ. longo suffultis.

Hab. in ramis emortuis junioribus et pedunculis Celtidis occidentalis, Tamsel Germaniæ (P. Vogel).

8. Sporodesmium cavernarum Laubert, Arb. k. biol. Anst, f. Land. 8559

u. Forstwirtsch. V (1906) p. 209, fig. 4. — Mycelio atro, denso, inter corticem et lignum extenso; hyphis brunneis contortis, intricatis; conidiis acrogenis, singulis, subglobosis v. subovoideis, transverse et longitudinaliter septatis e nigro-brunneo nigris, 7,5-15 × 14-30.

Hab. in ramis Betulæ, Kreis Jerichow, prov. Sachden Germania. — Socium adest Fusicoccum betulinum in morbo «Einschnürungkrankheit» dieto.

9. Sporodesmium Sacchari Speg. Myc. Argent. V, p. 443 cum icon. 8560 in An. Mus. Nac. Buenos Aires XX (1910). — Acervulis erumpenti-superficialibus subcrustaceis confluentibus linearibus et 3-15 mm. long., nigerrimis; hyphis nullis; conidiis ovoideis v. sæpius piriformibus v. subclavatis 16-22 × 10-12, tranverse (rarius radiatim) 1-3-septatis, ad septa non v. leniter constrictis, loculo medio sæpius v. longitudinaliter 1-septato, levibus, primo fuligineis, dein nigris opacis.

Hab. ad culmos dejectos putrescentesque Sacchari officinarum in campis prope Ledesma Jujuy Argentina Amer. austr.

10. Sporodesmium effusum P. Henn., in Fl. du Bas. et Moy. Congo, 8561 Ann. Mus. du Congo, v. II, fasc. II, (1907), p. 105. — Crustaceo-effusum, atrum; conidiophoris articulatis; conidiis subglobosis, olivaceo-fuscis, clathrato-septatis, 10-16 μ. diam.

Hab. in floribus Trichopteris sp., Kisantu Congo, Africa (VANDERYST).

11. Sporodesmium scleroticola P. Henn., in Fl. du Bas. et Moy. 8562 Congo, Ann. Mus. du Congo, v. II, fasc. II (1907) p. 105. — Crustaceo-effusum, atro-violaceum, gyrosum; conidiis subglobosis, ovoideis v. ellipsoideis 1-2-septato-clathratis, basi breve stipitatis, olivaceo-fuscis, 8-20 μ. diam.

Hab. in selerotiis in Panico et Andropogone Gayano, Kisantu, Congo, Africa (VANDERYST).

**SIRODESMIUM** De Not. — Syll. IV p. 516, XIV p. 2137, XVI p. 1077.

1. Sirodesmium Rosæ Bubák, Fünft. Beitr. Pilzfl. Tir., in Ber. natur. 8563 med. Ver. Innsbruck, XXX Jahrg. (1905-1906) p. 19. — Mycelio hyalino in pycnidiis vacuis vivente, ex ostiolo denique exeunte saturatiore, crassiore, parallele fasciculato et epidermidem perforante, septato; cæspitulis subrotundis, depresse pulvinatis, demum liberis, nigris, pulverulentis; conidiis catenulatis, forma et posi-

tione valde ludibundis, clathrato-septatis, atro-olivaceo-brunneis, fere impellucidis,  $9.35 \times 9.17$ , cellulis singulis subglobosis v. mutua pressione polygonis.

Hab. in pycnidiis vetustis Phomæ pusillæ ad ramos Rosarum cultarum, Meran agri Tridentini.

2. Sirodesmium Catamarcæ Speg., Myc. Argent. V, p. 445, in An. 8564 Mus. Nac. Buenos Aires XX (1910). — Pulvinulis primo hemisphæricis 200-250 μ. diam., dein confluendo difformibus latissimis, aterrimis, subpulverulentis; conidiis catenulatis e globoso ellipsoideis polymorphis, 6-20 ≈ 6-18, transverse 1-4-septatis loculo uno alterove v. omnibus septo longitudinali divisis, ad septa constrictis, atro-fuligineis, levibus.

Hab. ad tigilla putrescentia in montanis Huillapima Catamarca Argentina Amer. austr.

FUSICLADIOPSIS Maire, Bull. Soc. Bot. Fr. LIII (1906) p. CLXXXVI, (Etym. Fusicladium et opsis ospectus). — Est quasi Fusicladium dictyosporum. — A Macrosporio hyphis conidiferis brevibus subfasciculatis, non septatis distinguendum.

1. Fusicladiopsis conviva Maire l. c. p. CLXXXVII. — Hyphis vegetativis dilutissime brunneolis, in cellulis matricis late effusis, in epidermide interdum substromaticis; hyphis conidiferis brunneis, cylindricis v. arcuatis, subfasciculatis, circ. 18-22 × 6-7; conidiis ovoideis v. ellipsoideis, circa 24-30 × 13-17, primo continuis, dein uniseptatis, tandem muralibus, brunneis, minute asperulis.

Hab. in partibus foliorum Urgineæ Scillæ a Physodermate Urgineæ enecatis, Orán Algeria.

**STEMPHYLIUM** Wallr. — Syll. IV p. 519, X p. 671, XI p. 634, XIV p. 1092, XVI p. 1078, XVIII p. 617.

Stemphylium macrosporoideum (Berk.) Sacc. — Syll. IV p. 519 — 8566 var. spumarioides Penz., Studi botan. Agrum. p. 413, t. 44, fig. 5 (1887). — Effusum, pulvinatum, extus hyphis junioribus luxuriantibus incoloribus candidum, intus aterrimum; hyphis intricato-ramosis, hyalinis, haud septatis, 1,5-2 μ. diam.; conidiis in ramulorum apice v. latere insertis, solitariis v. rarissime concatenatis, subgloboso-moriformibus, cruciatim v. radiatim septatis, ad septa constrictis, initio achrois, demum fuligineis, levibus, 13-20 μ. d. Hab. in trunco vetusto Citri vulgaris, Romæ. — Ob cæ-

spitulos extus candidos, intus aterrimos, Myxomycetem quemdam imitantes, forma mox dignoscenda.

2. Stemphylium Citri Flora Patterson, Charles et Veihmeyer. U. S. 8567 Bureau of Plant Industr. Bull. n. 171 (1910) p. 14. — Mycelio elongato, hyalino, demum atro, 4 μ. cr., septato; conidiophoris brevibus; conidiis atro-brunneis, subglobosis v. oblongis, apiculatis, irregulariter septato-muriformibus, 20-30 × 12-15, pro more catenulato-ternis, per isthmos breves hyalinos connexis.

Hab. in Citri Limonum fructibus, quos necat, Arizona Amer, bor.

3. Stemphylium Tritici Flora Patterson, Bull. Torr. bot. Cl. (1910), 8568 p. 205. — Hyphis decumbentibus, irregulariter ramosis, fuligineis; ramis fertilibus erectis, crebro septatis, 4-5 μ. diam.; conidiis irregularibus, plerumque clavatis, catenulatis, muriformibus, ad septa leniter constrictis, 24-35 ≈ 12-15, fuligineis, verruculosis, isthmis brevibus, 3-4 μ. diam.

Hab. in foliis vivis et ovariis Tritici sativi, Texas et Oklahoma Amer. bor. — Speciei vis pathogena vere manifesta.

MACROSPORIUM Fr. — Syll. IV p. 523, X p. 672, XI p. 634, XIV p. 1093, XVI p. 1079, XVIII p. 618.

1. Macrosporium Sydowianum Farneti, Ann. Mycol. (1905) p. 433, 8569 cum icon. — Cæspitulis parvis brunneis in maculis fructuum arescentibus, furfuraceis; hyphis simplicibus adscendentibus, flexuosis, nodulosis, septatis, fuligineis, 60 μ. longis, in hypostromate effuso, toruloideo, inæqualiter constipato insertis; conidiis clavatis, breviter pedicellatis, multiseptatis, ad septa leniter constrictis, vertice rotundato, fuligineis, 28 × 12.

Hab. in fructibus Piri communis in Italia bor. — Generat in superficie fructuum maculas punctiformes leves (erpete furfuraceo Farneti), non profunda vulnera ut Fusicladium.

2. Macrosporium Dictamni Lindau, in Rabenh. Kryptog. Fl. Pilze 8570 IX p. 244 (1908). — Cæspitulis punctiformibus, subglobosis, remotiusculis, nigris, late effusis; conidiophoris dense fasciculatis, plerumque ex stromatibus exeuntibus, crebro septatis, irregulariter nodosis v. flexis v. æqualibus, olivaceo-brunneis, sursum pallidioribus,  $40-60 \approx 4-5$ , raro  $100 \approx 6.5$ ; conidiis ovoideis v. subclavatis, subinde tenuato-substipitatis, apice rotundatis, 3-4-pluri-septatis, longitudinaliter v. oblique 1-2-septatis, olivaceo-brunneis, parte tenuata pallidiore,  $23-40 \approx 8-12$ .

Hab. in caulibus Dictamni albi pr. Leucha in Thuringia (Oertel).

3. Macrosporium Yerbæ Spegazz., Anal. Mus. Nac. Buenos Aires 8571 t. XVII (1908) p. 138. — Plagulis latiusculis 10-25 mm. diam., tenuibus, ambitu sensim evanescentibus; hyphis erectiusculis, flexuosulis 3-7-septatis, apice denticulatis 40-80 × 5, fuligineis; conidiis ex denticulis hypharum oriundis, clavulatis, parte supera elliptica, 3-4-locularibus, loculis 1-3 mediis sæpe longitudinaliter divisis, ad septa constrictulis, loculo infimo elongato attenuatoque pedicelliformi, 40-50 × 8-10 long. tot., olivaceis.

Hab. ad ramos emortuos putrescentes Ilicis paraguariensis in dumetis circa San Pedro Misiones Rep. Argentina.

4. Macrosporium verrucosum Lutz, Bull. Soc. Bot. France LIII 8572 (1906-1907) p. XLVIII, cum icon. — Hyphis effusis, junioribus subhyalinis, parce ramosis et septatis, 5 μ. cr., quandoque conidiophoris abbreviatis, multiseptatis, nodulosis, atro-olivaceis; conidiis forma et magnitudine variis, 12-18 × 12, ætate provecta ovoideis, rotundatis, ellipsoideis v. clavulatis, 2-pluri- (usque ad 10) septatis, septis obliquis transversalibus v. longitudinalibus, ad septa constrictis, atro-olivaceis, 12-36 × 12-18, episporio crasso conspicue remotiuscule verrucoso.

Hab. in fructibus Theobromæ Cacao ægris, Roça de Boa-Entada, San Thomé.

5. Macrosporium commune Rabh. — Syll. IV, p. 524 — var. thei-8578 cola Speschn., Die Pilzparasiten d. Teestrauches (1907) pag, 18, tab. 3, fig. 8-13, p. p. — Maculis arescentibus non acute marginatis, variis; cæspitulis irregularibus, sparsis, convexis, atro-olivaceis; hyphis subfasciculatis 50-90 × 3-4, divergentibus; conidiis acrogenis globoso-ovoideis v. oblongis, sæpe piriformibus, 5-7-multiseptato-muriformibus, olivaceis, pro more 24-28 × 10, rarius minoribus et parcius septatis.

Hab. in foliis Theæ sp. cultæ in Caucaso, socio st. ascophoro Pleospora Theæ. — Uterque fungillus vere noxius.

6. Macrosporium Cirsii Lindau, Deutsch. Krypt. Flora, Pilze IX, 8574 p. 250 (1908). — Maculis variis, acute limitatis, superne pallide viridulo-brunneis, indistincte zonatis, inferne griseis; conidiophoris hypophyllis 2-3 fasciculatim e stomatibus erumpentibus, simplicibus erectis v. inclinatis, curvis, plus minus dense septatis, cellulis apicalibus inflatis v. angulosis, brunneis, diaphanis, 55-230 × 6-8; conidiis acrogenis solitariis, oblongis fere biscoctiformibus,

utrinque rotundatis, brunneis, diaphanis, medio constricto-septatis, reticulato-septatis, 27-38 × 13-15,5.

Hab. in foliis vivis Cirsii arvensis pr. Wiborg in Jutlandia (LIND).

7. Macrosporium Arnicæ Rostr., Bot. Tidsskr. XXVI (1905) p. 315. 8575 — Maculis amphigenis subrotundis, brunneis, confertim concentrice-zonatis, acervulis punctiformibus, brunneis; conidiis septatomuriformibus, 36-40 × 30, brunneis.

Hab. in foliis vivis Arnicæ montanæ pr. Nyborg supra Fühnen (Rostrup).

8. Macrosporium helminthosporioides (Corda) Sacc. et Trav. — Syll. 8576 XX, p. 8, Azosma helminthosporioides Corda, in Sturm Deutsch. Fl. III, fasc. 12, p. 35, t. 18. — Cæspitulis oblongis, superficialibus, olivaceis, 2-4 mm. long.; hyphis laxe fasciculatis, ascendentibus, filiformibus; conidiis cuneiformibus v. obovatis apice rotundatis, diaphane olivaceis, 3-7-septato-muriformibus.

Hab. in foliis emortuis Coniferarum pr. Prag Bohemiæ.

9. Macrosporium cæpicola Speg., Myc. Arg. V, p. 445, in An. Mus. 8577 Nac. Buenos Aires XX (1910). — Maculis sparsis orbicularibus 10-15 mm. diam., determinatis arescentibus subcallosis; cæspitulis præcipue marginalibus ex stomatibus erumpentibus 35-50 μ. diam.; hyphis simplicibus v. breviter ramulosis, cylindraceis utrinque incrassatulis subtruncatis 30-40 × 5-6 cum articulis brevibus subglobosis, 5-6 μ. diam., alternantibus, pallide rufescentibus; conidiis acrogenis solitariis cylindraceo-ellipsoideis sæpius triseptatis (rarius 5-7) non v. vix ad medium lenissime constrictis, loculo uno alterove, septo longitudinali diviso, levibus, pallide fuligineis, 30-40 × 12-15.

Hab. ad folia Allii Cæpæ ex Peronosporâ laborantia in hortis La Plata Argentina Amer. austr. — A M. parasitico Thm. et M. Porri Ell. toto cælo recedens.

10. Macrosporium lanceolatum Massee, Kew. Bull. (1910) pag. 5. — 8578 Cæspitulis epiphyllis, nigro-olivaceis, dense aggregatis ac matricis superficiem totam velutino-puberulam efficientibus; hyphis cylindraceis, erectis, flexuosis, deorsum atro-olivaceis, sursum sensim dilutioribus, septatis, 80-120 ≈ 7-8; conidiis lanceolatis, 5-7-septatis, loculis centralibus verticaliter 1-2-septatis, olivaceis, episporio crasso levi donatis, 60-70 ≈ 14-17.

Hab. in foliis Agaves rigidæ, Mozambico, Africæ trop. (W. H. Johnson).

11. Macrosporium Cheiranthi (Lib.) Fr. — Syll. IV, p. 525 — var. 8579
Asparagi Thüm. in Boll. Soc. Adriat. Trieste III, p. 432 (1877).
— Conidiis longe stipitiformi-attenuatis, ad septa vix constrictis; stipite 20 μ. longo.

Hab. in fructibus arescentibus Asparagi officinalis, Gradisca in agro Goritiensi (Bolle).

12. Macrosporium Sparganii Lindau, in Rabenh. Krypt. Fl. Pilze 8580 IX, p. 230 (1908). — Cæspitulis versiformibus, effusis, velutinis, olivaceo-brunneis; conidiophoris ex stomatibus fasciculatim erumpentibus, simplicibus erectis, rectis, rigidulis, usque ad 190 × 7,5-8, diaphane brunneis, apice hyalinis, septatis, articulis nonnullis subinflatis; conidiis oblongis, utrinque rotundatis, brunneis, 2-6-pluriseptatis parceque muriformibus, deorsum tenuato-substipitatis, ibique subhyalinis, totis 60 × 11-12.

Hab. in foliis emortuis Sparganii ramosi pr. Wyk supra Föhr Germania (JAAP).

- 13. Macrosporium heteronemum Desm. Syll. IV, p. 524 Teste 8581 cl. v. Höhnel Fragm. Mykol. VI, p. 133 species hæc est mixtura Cercosporellæ macrosporæ Bres. cum conidiis brunneis muralibus Macrosporii cujusdam.
- 14. Macrosporium caricinum Bonord., Handb. p. 85, tab, VI, f. 135 8582 (non Fr. quod = Clasterosporium). Dubia species a Bonordenio in Umbelliferis, non in Caricibus indicata!
- 15. Macrosporium torulosum Bonord., l. c. tab. V, fig. 123 (nomen 8583 deest in textu) non Pass. Est certe *Cladosporii* species dubia.
- 16. Macrosporium graminum Le Maout et Decaisne, Traité général 8584 Bot. (1868) p. 704, fig. (absque ulla diagnosi et loco).

## SEPTOSPORIUM Corda — Syll. IV p. 543, X p. 678, XI p. 637.

Septosporium velutinum C. et Ell. — Syll. IV, p. 544 et in Ann. 8585
 Mycol. X (1912) p. 315.

Hab. quoque in cortice interiore emortuo arborum, Blue Mountain Lake N. Y. Amer. bor. (Doct. et Domina Fairman). — Conidiophora dilute brunnea flexuosa obsolete septata,  $40-45 \approx 3,5-4$ , intermixtis setis sterilibus  $150 \approx 4-5$ , rectis, basi bulbillosis, aterrimis; conidia oblongo-ellipsoidea æque aterrima, basi apiculata,  $45-55 \approx 22-25$ , crebro 10-12-septato-muriformia, non constricta.

ALTERNARIA Nees — Syll. IV p. 545, X p. 679, XI p. 637, XIV p. 1098, XVI p. 1080, XVIII p. 622.

Syll. fung. XXII (VII-1913)

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Alternaria Brassicæ (Berk.) Sacc. — Syll. IV, pag. 546 — var. 8586
 Dauci (Kühn) Lindau, Deutsch. Krypt. Fl. Pilze IX, pag. 260,
 Polydesmus exitiosus var. Dauci Kühn, Hedw. I p. 91 (1855). —
 A typo recedit conidiophoris crassioribus fere monstrose efformatis; conidiorum cauda longius producte et sæpe curvata.

Hab. in Dauco Carota in Germania (Kühn, Sydow) et Dania (Rostrup). — var. nigrescens Peglion in Riv. Pat. veg. I (1893) p. 296 — Syll. XIX, p. 41. — Conidiis fusoideo-clavatis, 100 ≈ 14-20, demum 6-12-septato-muriformibus brunneo-fuligineis. — In Cucumere Melone, cui noxia pr. Avellino Ital. merid.

2. Alternaria Dianthi Stev. et Hall, in Rep. Divis. Biol. N. Carol. 8587 Exp. Stat. (1909) p. 72-75, fig. 1-8. — Maculis determinatis, subcircularibus, cinerescentibus; hyphis cæspitosis ex stomatibus exilientibus, amphigenis, atro-brunneis, 1-4-septatis, 1-25 ex quoque stomate; conidiis catenulatis, clavatis, deorsum obtuse tenuatis, atro-brunneis transverse 5-9-septatis, longitrorsum 0-5-septatis, 26-123 × 10-20, ad septa constrictis.

Hab. in foliis vivis caulibusque Dianthi Caryophylli, quem valde vexat, Raleigh N. C. Amer. bor.

3. Alternaria Ribis Bubák et Ranojevic, Ann. Mycol. VIII (1910) 8588 p. 400. — Maculis epiphyllis, effusis, griseis, arescentibus, brunneo-marginatis, subtus brunneis; conidiophoris cæspitosis, numerosis, divergentibus, simplicibus, septatis, nodulosis, brunneo-fuligineis, apice rotundato pallidioribus, basi tuberiformi incrassatis, 15-28 × 4-6; conidiis conoideis, late fusoideis, brunneo-fuligineis, 3-8 septis transv. præditis, ibique plerumque constrictis, longitudinaliter 2-3 muraliter divisis, in pedicellum attenuatis v. etiam sessilibus, 17-45 × 7,5-19; pedicello usque ad 38 μ. long., 3-4 μ. cr.

Hab. in foliis vivis Ribis rubri prope Schabac Serbia.

4. Alternaria Grossulariæ Jacz., Bull. Soc. Myc. Fr. XXII (1906) 8589 p. 122, cum icon. — Hyphis gregariis, erectis, brunneis, septatis, simplicibus v. parce ramosis; conidiis superimpositis, lageniformibus, elongatis, cito deciduis, rostro brevi præditis, brunneo-fuligineis, transverse 5-7-septatis, ad septa constrictis, septis longitudinalibus 1-2 præditis, 42-50 × 8-12.

Hab. in baccis Grossulariæ, Livonia Rossiæ.

Alternaria Cerasi Potebnia, Myc. St. in Ann. Myc. v. V (1907) 8590 pag. 22, fig. 41 et Trav. Soc. Nat. Univ. Kharkov, XXXXIII (1907). — Maculis velutinis; conidiophoris brevibus 35-50 μ. long., brunneis, in cæspitulos fortiter et parallele congestis; conidiis co-

noideis, apice distincte elongato-attenuatis, ibique conidia secundaria gerentibus,  $50-60 \approx 17-20$ , 4-6-transverse, 6-longitudinaliter septatis.

Hab. in margine sicco foliorum Pruni Cerasi in Kharkov, Rossia.

6. Alternaria Nucis Moesz, Gomb. Budapest I (1909) p. 25, t. II, 8591 f. 1, Bot. Közlem. — Effusa indeterminata, fumigata; hyphis flexuosis, irregulariter ramoso-intricatis, glabris v. asperulis, dilute fuscis v. dilute olivaceis griseis v. fuligineis, septatis, 2,5-5 μ. cr.; conidiis polymorphis, globosis vel oblongis, glabris vel asperulis, fuscis, olivaceis, fuligineis, catenulatis v. disjunctis, sepius terminalibus, solitariis, continuis v. transverse 1-4 et longitudinaliter 1-septatis, plerumque 20-23 × 10-13, denique 30-43 × 16-23.

Hab. in nuce Juglandis regiæ in superficie endocarpii ossei et in facie interiore mesocarpii viridis prope Budapest Hungariæ. — Differt ab Alt. hispida conidiis minoribus, magis regularibus et parcius septatis. Fungus endocarpium osseum tenuius efficit.

7. Alternaria Secalis (Fée) Sacc. et Trav. — Syll. XX, p. 1184 — 8592 Helminthosporium Secalis Fée Mem. sur l'Ergot du Seigle, in Mém. Soc. du Mus. d'hist. nat. Strasb. (1843) p. 36, t. II, f. C-i. Hyphis aggregatis, crustam efformantibus, nodulosis, obscure virescentibus, simplicibus v. ramosis septatis; conidiis clavatis, sæpius uno apice tenuatis, 4-5-septato-muriformibus, ad septa non v. vix constrictis.

Hab. ad ovarium, glumas, rhachidemque Secalis Cerealis in Gallia, Germania. — Forte, ex icone, var. Alternariæ Brassicæ.

## Sect. 5. Staurosporæ.

TERATOSPERMA Syd., Ann. Mycol. VII (1909) p. 172 (Etym. teras monstrum v. mirum et sperma spora, pro conidium). — Mycelium repens; hyphæ fertiles erectæ, obscure coloratæ, septatæ, simplices; conidia solitarie aerogena, peculiari ancoræ ad instar forma, colorata, pluriseptata.

1. Teratosperma singulare Syd., l. c., cum icon. — Cæspitulis epiphyl-8598 lis, sine maculis, plerumque orbicularibus, 1-3 mm. diam., atris; mycelio repente, septato, ramoso, fusco, ca. 6-8 μ. cr.; hyphis fertilibus erectis, simplicibus, 2-3-septatis, fuscis, 25-45 × 6-8; conidiis solitarie acrogenis, peculiari ancoræ ad instar forma, in ma-

turitate e partibus tribus (rarius quattuor) compositis; parte media elongato-obclavata, erecta, recta 3-7-septata, obscure olivaceo-brunnea, cellula apicali in rostrum dilutius coloratum v. subhyalinum longum producta, tota hac parte media (cum rostro) 70-110 μ. longa, inferne 17-22 μ. cr.; partibus duabus (raro tribus) alteris e cellula partis mediæ basali lateraliter oriundis, primitus continuis, tandem 1-2-septatis, dilutioribus v. subhyalinis, usque ad 35 μ. long., 5-8 μ. cr.

Hab. in foliis vivis Ulmi parvifoliæ, Nikko, Japonia (MI-

YAKE).

TRIPOSPORIUM Cesati — Syll. IV p. 554, XIV p. 1107, XVI p. 1081, XVIII p. 626.

Triposporium pannosum (Berk.?) Speg., Fungi Chilenses (1910) 8594 p. 195, cum icon. — Ita vocanda est Fumago pannosa Berk., Montagne in Gay Fl. Chil. VII, p. 495. De hac sp. Cl. Auctor exhibet hanc novam diagnosim: Late effusum pelliculosum v. pannosum atrum ex hyphis crassiusculis (6-7 μ. cr.) dense ramosis intertextis apice toruloso-proligeris (8-20 × 6-7) efformatum; conidiis stellatim 3-ramosis, ramis breviusculis 2-3-septatis, conoideis 20-40 × 10, olivaceis.

Hab. copiose in ramis foliisque vivis Boldoæ fragrantis, prope Talcahuano Chile Amer. austr.

2. Triposporium stelligerum Speg., Fungi Chilenses (1910), p. 196, 8595 cum icon. — Superficiale, pelliculosum, orbiculare, atrum; hyphis dimorphis: alteris crassis (10 μ.) rectis, paucis, parce ramosis obscure olivaceis sterilibus, alteris tenuibus (4-5 μ.) dense ramosis, fumosis, fertilibus; conidiis 3-4-radiatis, ramis 4-5-septato-constrictulis, apice hyalinis 50-60 × 12-14.

Hab. in foliis vivis Ætoxici punctati in silvaticis Cerro Caracol de Concepcion, Chile Amer. austr.

3. Triposporium patavinum L. Gaja, Flora micol. provinc. Padova, 8596 p. 25 (sunto litogr.). — Mycelio atro membranaceo acervulatim sub secedente epidermide ramorum effuso; conidiophoris pallescentibus, simplicibus, septatis, subcylindraceis, ac prope septa sæpe tortuosis et crassioribus, 25-40 × 2,5-3 circiter; conidiis acrogenis, 3-radiatis conice desinentibus, fulvo-fuscis, 44-48 μ. diam.; radiis 2-septatis, inæqualibus, ad septa constrictis ibique obscurioribus et ad apicem pallidioribus, 16-20 × 9-10.

Hab. in ramis emortuis sub epidermide secedente Taxi bac-

catæ, in Viridario Convictus Universitariorum, Patavii, Ital. bor. — Est affine *Triposporio eleganti*, a quo differt conspicue longitudine et numero septorum radiorum.

4. Triposporium fructigenum Rabh. (ubi?), Cooke, Black Moulds t. 24, 8597 f. 6 (absque diagnosi). — Conidiophoris ascendentibus crebro septatis, subtorulosis, brunneis, 150-160 × 10-11, simplicibus; conidiis stellato-triradiatis, radiis cylindraceis sursum tenuatis, 4-5-septatis, 4-guttulatis, brunneis, 50-60 × 10, articulo extime pallidiore.

Hab. in fructibus . . . . in Germania. — Diagnosis ex icone.

#### CERATOSPORIUM Schw. - Syll. IV p. 552.

Ceratosporium productum Petch, Ann. Roy. Bot. Gard. Perade-8598 nyia III (1906) Pt. I, p. 9. — Hyphis repentibus olivaceis, nitentibus, 4 μ. diam.; conidiis 2-4 fasciculatis, 9-13-septatis, non constrictis, olivaceis, ad apicem pallidioribus, 130-200 ≥ 10-12 (basi), apice 5 μ. cr., loculis basi quadratis, sursum attenuatis.

Hab. in ramis emortuis Heveæ brasiliensis, Ceylon Indiæ.

#### Sect. 6. Scolecosporæ.

CERCOSPORA Fres. — Syll. IV p. 431, X p. 618, XI p. 625, XIV
1099, XVI p. 1066, XVIII p. 595.

1. Cercospora Nigeliæ Hollós, Ann. Mus. Nat. Hungar. VIII (1910) 8599 p. 8. — Cæspitulis amphigenis, punctiformibus, nigris; hyphis fasciculatis, simplicibus, dilute brunneis, sursum pallidioribus, leviter nodulosis, 24-40 × 4; conidiis cylindraceo-clavatis, infra incrassatis e obtusatis, sursum leniter attenuatis, rectis v. curvulis 1-3-septatis, intus granulosis, hyalinis, 28-60 × 4-5.

Hab. in foliis languidis Nigellæ arvensis prope Kecskemét Hungariæ.

2. Cercospora Berteroæ Hollós, Ann. Mus. Nat. Hung. V (1907) 8600 p. 468. — Maculis rotundatis, expallentibus, griseo-cinctis; cæspitulis amphigenis, aggregatis, brunneis; hyphis fasciculatis, simplicibus, sursum leviter nodulosis, dilute brunneis, 45-55 × 4; conidiis cylindraceo-clavatis, infra incrassatis, sursum leniter attenuatis, rectis v. curvulis, 5-septatis, hyalinis, 60-70 × 5-6.

Hab. in foliis languidis Berteroæ incanæ prope Kecskemét Hungariæ.

3. Cercospora brassicicola P. Henn. Engl. Jahrb. XXXVII (1905) 8601 p. 166. — Maculis rotundatis, gregariis, pallidis, exaridis, zona

fusca circumdatis; cæspitulis hypophyllis; hyphis fasciculatis, fuscis, simplicibus,  $20-35 \times 3$ ; conidiis longe clavatis, obtusis, 5-9-septatis, hyalinis,  $40-80 \times 2,5-3$ .

Hab. in foliis Brassicæ sinensis, Komaba, Tokyo Japoniæ (MIYAKE). — A C. Bloxami conidiis plerumque clavatis, obtusis diversa sed C. Armoraciæ Sacc. proxima.

4. Cercospora biformis Petch, Bull. Torr. Bot. Cl. XXXVI (1909) 8602 p. 156. — Maculis brunneis, angularibus, folii venulis limitatis, aliquando confluentibus; hyphis hypophyllis, flexuosis, septatis, 30-150 × 4-6, brunneis; conidiis biformibus, aliis subcylindraceis hyalinis utrinque obtusis, vulgo 3-4-septatis, 40-100 × 4-6, aliis in partem gracilem longam sursum extenuatis, 6-12-septatis, hyalinis, 5-6 μ. ad partem latiorem, 3-4 μ. ad partem angustiorem crassis.

Hab. in foliis vivis v. languidis Passifloræ incarnatæ, Batesville Arkansas, Amer. bor. (E. Bartholomew). — Cerc. fuscovirenti Sacc. et C. truncatellæ Atk. affinis sed satis distincta.

5. Cercospora? phæochlora Speg., Myc. Arg. V, p. 441. in An. Mus. 8608 Nac. Buenos Aires XX (1910). — Maculis nullis; cæspitulis hypophyllis densissime congestis, subhemisphæricis; ac plagulas dense velutinas olivaceas obliquas efficientibus; hyphis simplicibus, tortuosulis, 30-50 × 5-6, continuis v. 1-3-septatis, non denticulatis, olivaceis; conidiis subcylindraceis leniter fusoideis v. obsoletissime clavulatis, rectis v. curvulis, 15-75 × 4,5-5, 1-5-septatis, ad septa non constrictis.

Hab. ad folia languida Lithreæ brasiliensis in horto bot. Municipali Buenos Aires Argentina Amer. austr.

6. Cercospora Mangiferæ Koord., Botan. Untersuch. Java (1907) p. 236, 8604 fig. 47. — Maculis angulatis, brunneis, 1-2 mm. diam., numerosissimis, paginam inferiorem foliorum occupantibus, supra pallide brunneis; hyphis fuligineis cylindraceis 1-2-septatis, 20-24 × 3-4; conidiis vermicularibus olivaceis, 36-47 × 5-5,5, plerumque 46 × 5.

Hab. in foliis vivis Mangiferæ indicæ, Purworedjo prov. Kedu, Java (Koorders).

7. Cercospora Helianthemi Cavara in Briosi e Cav., Funghi parass. 8605 n. 334 (1904). — Maculis epiphyllis, minutis, 2-2,5 mm. lat., orbicularibus, griseo-brunneis, non marginatis; conidiophoris fasciculatis, e nodulo mycelico subepidermico ortis, erectis, cylindraceis, 2-3-septatis, olivaceo-fuscis, typice monosporis, non denticulatis conidio paullo longioribus; conidis cylindraceis v. obclava-

tis, obtusius culis, 1-3-septatis, non constrictis, pallidioribus, 25-  $50 \times 3-4$ .

Hab. in foliis Helianthemi polifolii var. rosei in Horto botanico, Pavia, Italia bor. (G. B. Traverso et M. Turconi).

8. Cercospora exitiosa Syd. Mycoth. germ. n. 545, Ann. Myc. IV 8606 (1906) p. 485. — Cæspitulis in ramis vivis vel subvivis evolutis, maculas orbiculares valde conspicuas ½-1½ cm. diam. atrobrunneas linea elevata bene limitatas efficientibus, in medio maculæ dense aggregatis, minutis, griseo-olivaceis; hypostromate proratione valde evoluto, celluloso, atro vel atro-olivaceo; hyphis minutis, olivaceis, ca. 20-40 μ. longis, 3 μ. crassis, dense stipatis; conidiis fusoideis vel oblongo-clavatis, indistincte 1-3-septatis, rectis vel leniter curvulis, hyalino-olivaceis, 22-50 × 4-6.

Hab. in ramis vivis v. subvivis Tiliæ platyphyllæ, Tamsel Marchiæ (P. Vogel).

9. Cercospora Pareiræ Speg., Myc. Arg. V, p. 440, in An. Mus. 8607 Nac. Buenos Aires XX (1910). — Maculis amphigenis sæpius bullosis, repando-orbicularibus, 2-5 mm. diam., fuscescentibus determinatis; cæspitulis sæpius hypophyllis laxe gregariis, olivaceis; hyphis confertiusculis 40.75 × 5-6, sæpius 2-3-septatis rarius continuis, vix denticulatis efformatis; conidiis cylindraceis v. clavulatis, 1-3-septatis, rectis v. curvulis, 15-40 × 6-7, chlorinis.

Hab. ad folia viva Cissampeli Pareiræ in sepibus prope Tucuman Argentina Amer. austr. — Species notis nonnullis ad Cladosporium vergens.

10. Cercospora meliicola Speg., Myc. Arg. V p. 440, in An. Mus. 8608 Nac. Buenos Aires XX (1910). — Maculis suborbicularibus, 1-5 mm. diam., repandis, amphigenis (determinatis) candidis; cæspitulis sæpius epiphyllis laxe gregariis minutis olivaceis; hyphis erectis tortuosulis 100-200 × 6-10, simplicibus, asperulis, olivaceis; conidiis linearibus lenissime subclavulatis, 80 × 4, leniter curvulis, sæpius 3-septatis, chlorinis.

Hab. ad folia Meliæ Azedarach in Orán Jujuy Argentina Amer. austr.

11. Cercospora undulata (Ch. Bern.) Sacc. — Ramularia undulata 8609 Bernard, Bull. Départem. Agric. Neérland. XI (1907) pag. 47, fig. 62-65. — Maculis epiphyllis nigricantibus, hypophyllis flavis, minoribus fertilibusque; conidiophoris subfasciculatis, filiformibus, obsolete septatis; saturate brunneis, erectis, e mycelio filamentoso, repenti, septato, ramoso oriundis, 150 × 4-6, sursum denticulato—

undulatis; conidiis breviter fusiformibus, 4-5-cellularibus, non constrictis, initio hyalinis, demum brunneis, 24-25 × 6-8.

Hab in foliis Ægles odoratæ et Citri sp. in hortis, Buitenzorg Javæ. — Dimensiones ex iconibus petitæ.

12. Cercospora coleroides Saccardo Microm. Amer. novi, Journ. of 8610 Mycol. v. XII (1906) p. 52. — Maculis amphigenis, subcircularibus, 3-5 mm. diam., subgriseis linea atro-brunnea cinctis, interdum confluentibus; cæspitulis amphigenis laxe gregariis, punctiformibus, atris, 200 μ. diam., hypostromate celluloso, pulvinato, fuligineo, erumpente; conidiophoris e superficie hypostromatis orientibus dense stipatis, paliformibus, simplicibus, continuis, olivaceis, 40-50 × 5,5-6, apice truncatulis; conidiis in apice conidiophori solitariis, bacillaribus, rectis v. curvis, basi truncatis, olivaceis, brevioribus, 90-100 × 5-6 et 3-4-septatis, longioribus 140-150 × 5-6 et 10-12-septatis, non constrictis, septis superioribus minus evidentibus, articulis plerumque utrinque 1-guttulatis.

Hab. in foliis languidis Casimiroæ edulis vulgo Zapote blanco, Tenancingo, Mexico. (Bonansea) — Ob cæspitulos punctiformes conidiis radiantibus conspersos Coleroam in mentem revocat. Ob hypostroma conspicuum hæc species et aliæ consimiles ad Exosporium nutant.

13. Cercospora Bruceæ Petch, Ann. R. Bot. Gard. Peradeniya IV 8611 Pt. V (1909) p. 306. — Plagulas nigras hypophyllas formans; hyphis fuscis, repentibus et internerviis, subpannosis, 3-4 μ. diam.; conidiis multiseptatis, subclavatis, rectis v. curvis, 45-65 × 5.

Hab. in foliis Bruceæ sumatranæ, Kandy Ceylon.

14. Cercospora Violæ Sacc. — Syll. IV p. 434. — Var. minor Rota-8612
Rossi III Contr. Mic. Bergamo, Atti R. Ist. bot. Pavia, ser. II,
v. XIII (1907) p. 199. — A typo differt conidiis brevioribus,
nempe 50-90 v 4-5.

Hab. in foliis Violæ sp. Parre, Bergamo Ital. bor.

15. Cercospora Kleinhofiæ v. Höhnel, Fragm. z. Mykol., Sitzb. L. 8618 Ak. d. Wiss. Wien, Bd. CXVI Abt. I (1907) p. 150. — Maculis amphigenis, copiosis, inæqualiter anguloso-circularibus, 2-10 mm. diam., sæpe confluentibus, brunneis, ochraceo-marginatis; cæspitulis minutis, vix conspicuis, infra copiosis, supra parcioribus; conidiophoris brunneolis, simplicibus, continuis, parcis, 20-25 × 4-5, unidenticulatis; conidiis filiformi-cylindraceis, sursum leniter tenuatis, apice, obtusis, 2-5-cellularibus, 35-65 × 4-5.

Hab. in foliis Kleinhofiæ hospitæ, Matrotua in insulis Samoa (Doct. Rechinger).

16. Cercospora Dilleniæ Petch, Ann. Roy. Bot. Gard. Peradeniya 8614 III Pt. I (1906) p. 9. — Maculis fusco-brunneis, demum supra griseis, zona fusco-brunnea cinctis; conidiophoris sæpius epiphyllis, in cæspites nigros, minutos congestis, brevibus, olivaceis; conidiis obclavatis, rectis v. leniter curvatis, olivaceis, 5-9-septatis, 60-90 × -47.

Hab. in foliis Dilleniæ retusæ, Ceylon Indiæ.

17. Cercospora Yerbæ Speg., Anal. Mus. Nac. Buenos Aires t. XVII 8615 (1908) p. 140. — Maculis fuscis orbicularibus, 2-5 mm. diam., obsolete determinatis centro fuscescentibus depressis ambitu incrassato callosulis; acervulis centro macularum dense aggregatis, punctiformibus, 90-120 μ. diam., fusco-olivaceis, compactiusculis; hyphis brevibus olivaceis erectis, simplicibus 20-50 × 5, 1-3-septatis, apice denticulatis; conidiis rectis v. curvulis, ad septa non v. vix constrictis, clavulatis, apice obtusiusculis, deorsum attenuato-acutatis, 30-60 × 5, levibus, acrogenis, chlorinis.

Hab. ad folia languida Ilicis amaræ prope Villa Encarnacion

Misiones Riep. Argentinæ.

18. Cercospora Zizyphi Petch, Ann. R. Bot. Gard. Peradeniya IV Pt. 8616 V (1909) p. 306. — Maculis primum flavis dein brunneis et flavo-marginatis, circularibus v. ovatis, usque ad 4 mm. diam.; pustulis minutis, amphigenis, 40 μ. circ. diam., nigris; conidiophoris 16-20 × 4, rectis; conidiis 40-75 × 4, minoribus æqualibus, majoribus clavatis et conoideis usque ad 2 μ. diam., plerumque nodulosis, rectis, apice obtusis, 3-8-septatis, chlorinis.

Hab. in foliis Zizyphi oenopliæ, Peradeniya Ceylon.

19. Cercospora Vitis-heterophyllæ P. Henn., Engl. Jahrb. XXXVII 8617 (1905) p. 166. — Cæspitulis hypophyllis, effusis, atro-fuscis, hyphis fasciculatis brunneo-fuscis, septatis, 3-4 μ. cr.; conidiis cylindraceo-clavatis v. fusoideis, 5-10-septatis, constrictulis, atro-olivaceis, 40-75 × 4-4,5.

Hav. in foliis Vitis heterophyllæ, Nishiarai Tokyo Japo-

niæ (Nambu).

20. Cercospora vexans C. Mass. in Sacc., Notæ Myc. VIII, Ann. 8618 Myc. v. IV (1906) p. 494. — Cæspitulis hypophyllis, imperspicuis, laxe sparsis in maculis parvis irregulariter angulosis, subferrugineis et vulgo zona e flavo rubescenti cinctis; hyphis fertilibus fasciculatim ex ostiolis stomatum egredientibus, fuligineis,

sursum dilutioribus, apice obsolete denticuligeris, sæpius septatis, raro ramulosis,  $40-60 \approx 3-3.5$ ; conidiis initio ovoideis, deinde cylindraceo-fusoideis,  $15-18 \approx 2-3$ , continuis, interdum 1-septatis, hyalinis, catenulatis (ut videtur).

Hab in foliis languidis Fragariæ vescæ in cultis, Tregnago, Verona (MASSALONGO).

21. Cercospora Crataegi Sacc. et C. Massal in Saccardo, Not. Myc. 8619 VI, Ann. Myc. v. III (1905) p. 515. — Maculis præsertim hypophyllis minutis ½-1 mm. diam. e rotundo angulosis, alutaceis, non discolori-marginatis; cæspitulis minutis, parcis; hyphis fertilibus fasciculatis, cylindraceis, subflexuosis, 1-2-septatis, sursum parce nodulosis, 30-40 × 3, dilute fuligineis; conidiis tereti-fusoideis v. anguste obclavatis, 3-septatis, sæpius curvulis, 18-28 × 2,5-3, hyalinis demum dilutissime fuligineis.

Hab. in foliis adhuc vivis Crataegi Oxyacanthæ in silvis di Veralta supra S. Mauro di Saline, Verona, Ital. bor. (Massalongo). — Socia et verisimiliter matagenetica adest Phyllosticta cratægicola.

22. Cercospora Punicæ P. Henn., Engl. Jahrb. XXXVII (1905) 8620 p. 165. — Maculis rotundatis, atro-fuscidulis; cæspitulis hypophyllis, conidiophoris fasciculatis, fuscidulis, 20-40 × 3; conidiis cylindraceis, subfusoideis v. subclavatis, 40-50 × 3-3,5, hyalino-subfuscidulis, 4-septatis.

Hab. in foliis Punicæ Granati, Komata Tokyo Japoniæ (MIYAKE).

23. Cercospora Usteriana Spegazz., Fungi Paulist. Rev. Museo La 8621 Plata t. XV, p. 46 (1908). — Maculis obsolete fuscescentibus indeterminatis, amphigenis; acervulis hypophyllis, villo foliorum absconditis, penicilliformibus, ex hyphis subfasciculatis 40-80 × 4-5 subtorulosis, 1-3-septatis efformatis, olivascentibus; conidiis curvulis v. sigmoideis 30-100 × 5-6, 3-5-septatis, ad septa non constrictis, lævibus, an catenulatis?, fumosis.

Hab. ad folia languida Myrtaceæ cujusdam in Horto botanico Sao Paulo, Brasilia (USTERI).

24. Cercospora? puccinioides Speg. Myc. Arg. V, pag. 441, in An. 8622 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; cæspitulis hypophyllis ferrugineis dense constipatis; hyphis simplicibus erectis, septulatis, levibus, 25.50 × 5, fumoso-olivaceis, non denticulatis; conidiis clavulatiis, solitaris, 30-60 × 5-8, 2-5-septatis, ad septa non constrictis, fumoso-olivaceis.

Hab. ad folia viva Collææ argentinæ in collinis prope Córdoba Argentina America austr. — Acervuli compactiusculi soros Pucciniæ cujusdam optime simulant.

25. Cercospora Wildemanii Syd., in De Wildem. Flore Bas- et Moy. 8628 Congo t. III, fasc. I (1909) Extr. p. 21. — Maculis amphigenis, orbicularibus v. suborbicularibus, 2-8 mm. latis, centro arescentibus, zona purpurea latiuscula cinctis; cæspitulis hypophyllis, minutissimis, olivaceo-griseis; hyphis fasciculatis, olivaceo-fuligineis, subcontinuis, 20-30 × 4-6; conidiis obclavato-cylindraceis, distincte 8-14-septatis, viridulis, rectis subinde valde curvatis, 50-100 × 6-8.

Hab. in foliis Dolichi sp., Kimdua Congo, Africa (VAN-DERYST).

26. Cercospora Vanderysti P. Henn., in Fl. du Bas- et Moy. Congo, 8624 Ann. Mus. du Congo, v. II, fasc. II (1907) p. 104. — Maculis fuscidulis effusis; cæspitulis hypophyllis effusis velutinis, olivaceocinereis; hyphis ramosis, septatis, guttulatis, fuscis, 3,5-4,5 μ. cr.; conidiis clavatis, apice obtusis, 1.5 septatis, guttulatis, fuscis, 25-40 × 3,5. (usque ad 70 μ. long. sec. Sydow, 1909).

Hab. in foliis Vignæ venulosæ Bak., Kisantu Congo, Africa (VANDERYST).

27. Cercospora Sesbaniæ P. Henn. in Fl. du Bas et Moy. Congo, 8625 Ann. Mus. du Congo v. II, fasc. II (1907) p. 104. — Maculis effusis flavidulis; cæspitulis hypophyllis effusis, subcinereo-fuscis; hyphis fasciculatis, simplicibus, interdum 1-4-septatis, fuscis; conidiis fusoideo-clavatis, curvatis, obtusiusculis, pluriguttulatis dein 10-16 septatis, fuscidulis, 30-62 × 4-5.

Hab. in foliis Sesbaniæ sp., Kisantu Congo, Africa (VAN-DERYST).

28. Gercospora innumerabilis (Fuckel) v. Höhn. Sitzb. K. Ak. d. 8626 Wissensch. Wien CXVI (1907) p. 622. — Ita vocandum *Psilothecium innumerabile* Fuckel — Sacc. Syll. III p. 446 (? Stagonospora) — sec. v. Höhnel l. c.

29. Cercospora Ternateæ Petch, Ann. R. Bot. Gard. Peradeniya IV, 8627 Pt. V (1909) p. 306. — Maculis foliicolis rotundatis, nigris, centro brunneis, dein griseis margine flavido v. pallide viridi præditis, 3 mm. diam.; conidiophoris amphigenis; maculis in leguminibus usque ad 5 mm. diam., confluentibus, nigris brunneo-marginatis; conidiophoris olivaceis, e stromate minuto orientibus, septatis, levibus, usque ad 90 × 5, apice unidenticulatis et monosporis, dein usque ad 200 μ. long. et nodulosis; conidiis filiformibus 80-120 μ.

long. sursum tenuatis et ad 2-4  $\mu$ . cr., multiseptatis, curvatis, septis circiter 8  $\mu$ . distantibus.

Hab. in foliis leguminibusque Clitoriæ Ternateæ, Peradeniya Ceylon. — A C. Clitoriæ Atk. conidiis et conidiophoris longioribus differre videtur.

30. Cercospora Rautensis C. Mass., Madonna Verona III (1909) 8628 p. 19. — Maculis parvis subrotundis pallide griseis, 2-3 mm. lat., zona rufa cinctis; cæspitulis epiphyllis crebre disseminatis; conidiophoris 1-2-septatis, varie nodulosis et inflexis, superne alterne denticuligeris, 60-90 × 3-4, subrubiginosis; conidiis obelavato-cylindraceis, sursum attenuatis, sæpe curvulis, pluriseptatis, hyalinis 60-100 × 4-5.

Hab. in foliis Coronillæ variæ in silva «delle Raute» prope Cogolo Verona (Massalongo).

31. Cercospora Loti Hollós, Ann. Mus. Nat. Hung. V (1907) p. 468. 8629 — Maculis rotundatis, rubro-brunneis; cæspitulis epiphyllis, aggregatis, olivaceis; hyphis fasciculatis, simplicibus, sursum leviter nodulosis, 1-2-septatis, pallide olivaceis, 80-100 × 4-5; conidiis cylindraceo-clavatis, infra incrassatis et obtusatis, sursum leniter attenuatis, rectis curvulisve, 10-11-septatis, pluriguttulatis, hyalinis, 70-90 × 4-5.

Hab. in foliis languidis Loti siliquosi prope Kecskemét Hungariæ.

32. Cercospora Stolziana Magn. in Dalla Torre et Sarnt. Fl. Tirol. 8680 III (1905) p. 558. — Maculis arescendo flavis, bullatis, circumcirca non bene definitis; conidiophoris fasciculatis, ex stomatibus utriusque paginæ erumpentibus, septatis, denticulatis, 35-40 μ. longis; conidiis fere filiformibus, 9-pluriseptatis, hyalinis, 85 μ. longis, articulis circ. 8 μ. longis.

Hab. in foliis Trifolii repentis pr. Innsbruck (STOLZ). — Præsertim ob maculas peculiares a ceteris speciebus trifoliicolis dignoscenda species.

33. Cercospora Hippocrepidis Jaap, Beitr. Pilzfl. d. Schw., Ann. 8631 Myc. V (1907) p. 271. — Maculis subrotundis, 2-3 mm. latis, dilute griseis v. albidis, brunneo-marginatis; eæspitulis amphigenis griseo-nigricantibus; conidiophoris fasciculatis, leviter curvis et nodulosis, denticulatis, olivaceis, septatis, 50-70 × 5; conidiis septatis, hyalinis, usque ad 60 × 3,5-4,5.

Hab. in foliis vivis Hippocrepidis comosæ pr. Meiringen Helvetiæ (JAAP).

34. Cercospora Ceratoniæ Pat. et Trab. — Syll. XVIII p. 601. — 8632 Diagnosim pleniorem vide in Ann. Mycol. VII (1910) pag. 346 (Saccardo). Species nascitur quoque in Italia meridionali.

35. Cercospora sapiicola Speg., Myc. Arg. V p. 442, in An. Mus. 8683 Nac. Buenos Aires XX (1910). — Maculis amphigenis angulatis, 2-5 mm. diam., determinatis, tabacinis, centro pallidioribus; cæspitulis hypophyllis penicilliformibus, 40-50 μ. diam., olivaceis; hyphis rectis v. leniter arcuatulis, non v. vix flexuosis, 35-40 × 5, obsolete (sæpius 2-3-)-septulatis olivaceis; conidiis linearibus non v. vix clavulatis, 35-70 × 5-6, obsolete septulatis, chlorinis.

Hab. ad folia viva Sapii aucuparii, var. salicifoliæ in silvis Puerto León Misiones Argentina Amer. austr.

36. Cercospora Jatropharum Speg., Myc. Argent. V, p. 440, in An. 8634 Mus. Nac. Buenos Aires XX (1910). — Maculis repando-orbicularibus, 3-5 mm. diam., amphigenis, determinatis, concentrice discoloribus; cæspitulis epiphyllis laxe insidentibus, pusillis, 75-90 μ. diam., olivaceis, compactiusculis; hyphis constipatis, 25-35 × 6, cylindraceis, continuis, chlorinis; conidiis vermicularibus, lenissime clavulatis, 30-80 × 5-8, 1-3-septatis, ad septa non constrictis, chlorinis.

Hab. ad folia viva Jatrophæ macrocarpæ prope Catamarca Argent. Amer. austr.

37. Cercospora Manihotis P. Henn., in Fl. du Bas- et Moy. Congo, 8635 Ann. Mus. du Congo v. II, fasc. II (1907) p. 104. — Maculis rotundatis v. effusis, fusco-atris; cæspitulis hypophyllis, ferrugineis; hyphis fuscis, septatis, 3,5-4 μ. cr.; conidiis clavatis sæpe curvulis, vertice obtusis, 1-5-septatis, subfuscidulis, 25-37 × 4-5.

Hab. in foliis Manihot utilissimæ, Kisantu Congo, Africæ (VANDERYST).

38. Cercospora Cearæ Petch, Ann. Roy. Bot. Gard. Peradeniya, III 8636 Pt. I (1906) p. 8. — Maculis irregularibus rubro-brunneis, deinde griseis, fusco-brunneo-marginatis, demum confluentibus; conidiophoris amphigenis in cæspites minutos deinde griseos congestis; conidiis cylindraceis, sursum leniter attenuatis, rectis, olivaceis, 5-10-septatis, 42-78 × 6-7.

Hab. in foliis Manioth Glaziovii, Ceylon Indiæ.

39. Cercospora profusa Syd., Ann. Mycol. VII (1909) p. 175. — 8637 Maculis nullis; cæspitulis hypophyllis, minutissimis, sed dense aggregatis et demum plerumque totam folii superficiem obtegentibus, obscure olivaceis; hyphis fasciculatis, subflexuosis, septatis,

simplicibus v. parce ramosis, dilute olivaceis,  $60-110 \approx 4-6$ ; conidiis vermicularibus, 5-7-septatis, hyalino-olivaceis,  $50-90 \approx 4-6$ .

Hab. in foliis Acalyphæ australis, Hoki-ya-mine Tosa Japoniæ (Yoshinaga). — Secundum diagnosim a Cerc. Acalyphæ Peck videtur diversa.

40. Cercospora Tiglii P. Henn.; Hedwigia XLVII (1908) pag. 265. 8638
 — Maculis sparse gregariis, rotundatis, subbullatis, atris, hyphis fasciculatis, fuscidulis, septatis, 70 ≈ 4; conidiis cylindraceo-fusoideis v. clavatis, fuscidulis, 40-50 ≈ 3,5, 4-5-septatis.

Hab. in foliis Crotonis Tiglii, in insula Balut ex Philippinensibus (MERRILL).

41. Cercospora obtegens Syd., Ann. Mycol. VII (1909) p. 171. — 8639 Maculis nullis; cæspitulis hypophyllis, plerumque per totam folii superficiem effusis, atro-olivaceis; hyphis simplicibus, olivaceobrunneis, parce septatis, 35-70 × 4-6; conidiis cylindraceis, 5-12-septatis, olivaceis, rectis v. curvulis, 60-130 × 3,5-6.

Hab. in foliis Hydrangeæ hortensis, var. Azisai, Sugamo Tokyo Japonia. — Secundum diagnosim a Cerc. Hydrangeæ Ell. et Ev. diversa.

42. Cercospora Araliæ P. Henn. Engl. Jahrb. XXXVII (1905) p. 165. 8640 — Maculis effusis, fuscis; cæspitulis hypophyllis effusis; hyphis fasciculatis, septatis, ramosis, hyalino-fuscidulis, 2,5-4 μ. cr.; conidiis cylindraceo-fusoideis v. subclavatis, subacutis, fuscis, 3-6 septatis constrictiusculis, 30-60 × 5-6.

Hab. in foliis Araliæ sinensis, Kônodai, Tokyo Japoniæ (Kusano).

43. Cercospora hamasensis Sacc. Ann. Mycol. VIII (1910) p. 340. 8641

— Maculis amphigenis luteolis subrotundis; cæspitulis punctiformibus confertissimis nigris hinc easdem maculas atra efficientibus, e tuberculo atro hemisphærico (in pycnidium demum evadente) oriundis; hyphis brevibus, cylindraceis, radiantibus, continuis, dilute fuligineis; conidiis fusoideo-obclavatis, sursum attenuatis, obsolete 3-septatis, non constrictis, 55-70 ≈ 5-6, dilute olivaceis.

Hab. in foliis subvivis Peu cedani fraxinifolii, Nefasit ad Maha-bar alt. 1600 m. (Hamasen) Erythraea (HADR. FIORI). — Cfr. Phyllosticta hamasensis.

44. Cercospora Handelii Bubak in Handel- Mazzetti, Bot. Reise Pont. 8642 Randgebirge, in Ann. Naturhist, Hofmus. Wien XXIII (1909) p. 106, t. V, f. 5 a-b. — Maculis irregularibus, magnitudine variis, plerumque confluentibus magnamque folii partem occupanti-

bus, arescentibus et deinde obscure ochraceis, cæspitulis hypophyllis fere æque distributis, e tuberculis sclerotiiformibus orientibus, fasciculatis griseo-viridibus; hyphis cylindricis,  $20\text{-}35 \approx 2.5$ , dense fasciculatis, in medio uniseptatis, apice dense denticulatis, parum curvatis, olivaceo-brunneis; conidiis longis, cylindraceis, plus vel minus curvulis, usque ad  $100~\mu$ . long.,  $3\text{-}5~\mu$ . latis, nonnullis septis instructis, olivaceis.

Hab. in foliis Rhododendri pontici in montibus Ponticis Anatoliæ.

45. Cercospora Petroselini Sacc. in Ann. Mycol. X (1912) p. 321 et 8648 Syll. Fung. IV p. 422 (ut var. C. Apii).

Hab. in foliis languidis Petroselini sativi, Romæ, (D. Saccardo). — Aptius ut species propria habenda; conidiophoris cæspitulosis, brunneis, amphigenis, sæpius 1-septatis,  $60-70 \times 5-6$ , sursum distincte denticulatis pallidioribus; conidiis tereti-fusoideis, rectis curvulisve, 1-2-septatis,  $36-40 \times 4-5$ , subhyalinis; maculis minutis subolivaceis, non marginatis.

46. Cercospora Malkoffii Bubák, Ann. Mycol. IV (1906) p. 121. — 8644 Maculis pallide brunneis, foliola tota v. apicem tantum occupantibus et necantibus; cæspitulis amphigenis, confertis, minutissimis, albis; conidiophoris confertis fasciculatim ex stomatibus erumpentibus et hypostromate suffultis, continuis, curvis, 2-3-denticulatis, dilute olivaceis, sursum tenuatis dilutioribus, 25-35 × 3-4,5; conidiis primo ramularioideis, rectis curvulisve, bicellularibus, demum apicem versus sensim tenuatis, curvatis, 2-4-septatis, hyalinis, grosse v. minute guttulatis, usque ad 90 × 3-4,5.

Hab. in foliis Pimpinellæ Anisi, Philippopel Bulgariæ (Malkoff).

47. Cercospora lumbricoides Turconi et Maffei, Atti Ist. Bot. Univ. 8645 Pavia ser. II, v. XII (1910) extr. p. 330, tab. XII, fig. 1. — Maculis amphigenis, subcircularibus, raro plus minus oblongis, avellaneis in epiphyllo obscurius zonatis, anguste rubro-brunneo-marginatis, in hypophyllo pallidioribus, atque marginatis; cæspitulis hypophyllis, sparsis v. subgregariis, fuscis; conidiophoris fasciculatis, erectis, quandoque superne nodulosis, septatis, fuscis, 30-60 × 4-6; conidiis cylindraceis v. sursum leniter attenuatis, utrinque rotundatis, pluriseptatis, non constrictis, flexuoso-recurvis, lumbriciformibus, 80-200 × 4-6, fuscis.

Hab. in foliis vivis Fraxini sp. Vautepec, Estado de Morelos in Mexico (A. L. HERRERA).

48. Cercospora Kabatiana Allescher in Vestergr. Micr. sel. n. 546 8646 (sine diagn.), Lindau Deutsch. Krypt. Fl. Pilze IX, p. 130 (1908). — Maculis irregularibus, marginalibus angulosis, centralibus subrotundis, læte ochraceo-brunneis, brunneo- v. viridulo-marginatis, demum arescentibus et subevanidis; cæspitulis amphigenis, punctiformibus, brunneo-viridulis; conidiophoris dense fasciculatis e stomatibus exeuntibus, simplicibus, non denticulatis, 23-43 × 4-5, e viridulo brunneo-viridulis; conidiis ensiformibus, curvulis, sursum sensim tenuatis, apice obtusulis, obsolete pluri-septatis hyalinis, 38-58 × 3-4.

 $\it Hab$ . in foliis vivis Galeobdoli lutei pr. Turnau Bohemiæ (KABAT).

49. Cercospora Helminthostachydis P. Henn., Hedwigia XLVII (1908) 8648 p. 265. — Maculis fuscidulis, sparsis, rotundatis; cæspitulis hypophyllis atro-fuscis, hyphis fasciculatis, fuscis, septatis, 25-50 × 3-4; conidiis fuscideis, fuscidulis, 3-7-septatis, 40-60 × 3-4.

Hab. in folis Helminthostachydis zeylanicæ, Mindanao, Davao (Ins. Philippin.) mart. 1904 (COPELAND).

50. Cercospora ? Tupæ Speg., Fungi Chilenses (1910) p. 187, cum 8649 icon. — Maculis vix manifestis amphigenis pallescentibus indeterminatis, subbullosis, 5-10 mm. diam.; cæspitulis hypophyllis innato-erumpentibus confertis subparenchymaticis 50-100 μ. diam., ex hyphis olivaceis brevissimis bicellularibus efformatis, 10-12 × 4-5; conidiis polymorphis, obovatis cylindraceis clavulatis, sæpius 2-3-cellularibus, rarius continuis v. 4-cellularibus, ad septa valide constrictis, pallide olivaceis, 30-45 × 8-12.

Hab. frequens in foliis vivis Lobeliæ Tupæ prope Ciudad de Valdivia Chile Amer. austr.

51. Cercospora Volkameriæ Spegazz., Fungi Paulist. Rev. Mus. La 8650 Plata t. XV, p. 107 (1908). — Maculis primo minutis callosulis, dein confluendo difformibus majusculis 1-20 mm. diam., determinatis sordide cinerescentibus angulosis; acervulis subhemisphæricis 80-150 μ. diam., epiphyllis sparsis v. hinc inde circinantibus; hyphis erectis non v. vix flexuosulis apice denticulatis, 50-75 × 6, conti nuis v. 1-2-septatis; conidiis flexuosis deorsum incrassatulis sursum longissime attenuatis primo pluriguttulatis dein multiseptatis 70-120 × 5, hyalinis.

Hab. ad folia viva Volkameriæ fragrantis in Horto botanico Sao Paulo Brasilia (USTERI).

52. Cercospora Batatæ P. Henn., Engl. Bot. Jahrb. XXXVIII (1905) 8651

p. 118. — Maculis rotundatis atro-fuscis; acervulis hypophyllis, hyphis fasciculatis, septatis,  $20-30 \times 3$ , fuscidulis; conidiis fusoideis v. clavatis,  $40-60 \times 3,5-4$ , fuscidulis, 3-5-septatis.

Hab. in foliis Batatæ edulis, Amani Ost Usambara Africæ (ZIMMERMANN). — Conidiophoris et conidiis minoribus videretur diversa a Cerc. Batatæ Zimm. (1904). — Syll. XVIII p. 605 — sed verisimiliter est tantum forma minus evoluta.

53. Cercospora ticinensis Cavara in Briosi e Cavr., Funghi parass. 8652 n. 336 (1900) — Maculis variis, griseo-fuscis, nervis secundariis limitatis, zonis transversis, undulatis, nigris præditis; hyphis fertilibus seu conidiophoris hypophyllis fasciculatis, continuis, dilute ochraceis, 40-45 × 4-5; conidiis terminalibus cylindraceis v. clavatis, chlorinis, 1-4-septatis, 20-85 × 3-4.

Hab. in foliis languidis Sambuci nigræ in Horto bot. Pavia Italia bor. — Huc spectat Cercospora depazeoides nonnull. auct. et ipsius Cavara in D. Sacc. Myc. ital. n. 199, sed ab ea dignoscitur maculæ forma, conidiophoris hypophyllis, brevioribus etc.

54. Cercospora Gay-Lussaci Spegazz., Fungi Paulist., Rev. Mus. La 8658 Plata t. XV, p. 46 (1908). — Maculis epiphyllis laxe gregariis subdeterminatis ex orbiculari angulatis, primo minutis dein confluendo majoribus 1-5 mm. diam.; acervulis minutis laxe gregariis ex hyphis rectiusculis 1-3-septatis apice denticulatis  $10-50 \approx 4-6$  olivaceis e nodulo grosse parenchymatico exsurgentibus efformatis; conidiis rectis v. leniter curvulis sursum obtusiusculis deorsum acutiusculis,  $20-40 \approx 4$ , ad septa non constrictis, hyalinis.

Hab. ad folia languida Gaylussaciæ cujusdam, Ipiranga Cambucy Brasiliæ (Usteri).

55. Cercospora epigæina Davis, Trans. Wisconsin Ac. of Sc. v. XVI, 8654 P. II (1909) p. 758. — (Maculis foliicolis late effusis rubro-brunneis; cæspitulis hypophyllis dense effusis; hyphis brunneo-nigris e basi tuberculiformi arcte coalitis, rectis v. curvulis, 20-30 × 3-4; conidiis hyalinis rectis v. curvulis, acicularibus pluriseptatis, 60-100 × 3.

Hab. in foliis Epigææ repentis, Adams County Amer.

bor. (Davis).

56. Cercospora Erythrææ Hollós, Ann. Mus. Nat. Hung. IV (1906) 8655
 p. 369. — Maculis nullis; cæspitulis caules foliaque invadentibus, aggregatis, olivaceis, 100-150 μ. diam.; hyphis simplicibus, septatis, dilute brunneis, 30-40 × 4-5; conidiis cylindraceo-clavatis, deorsum paullo incrassatis, sursum leniter attenuatis, utrinque obsyll. fung. XXII (VII-1913)

tusis, rectis v. curvulis, 3-5-septatis, ad septa interdum constrictis, flavidulis,  $30-70 \approx 3.5-4$ .

Hab. in foliis caulibusque languidis Erythrææ linariæfoliæ prope Jzsák Hungariæ.

57. Cercospora dulcamaricola Hollós, Ann. Mus. Nat. Hung. IV 8656 (1906) p. 370. — Maculis rotundatis, brunneis, dein medio pallescentibus, brunneo-cinctis; cæspitulis amphigenis, aggregatis, brunneis, c. 40 μ. diam.; hyphis simplicibus, 1-2-septatis, dilute brunneis, 30-40 × 3,5-4; conidiis cylindraceo-clavatis, deorsum incrassatis, sursum leniter attenuatis, rectis v. curvulis, 3-8-septatis, hyalinis, 70-150 × 3,5-5, plerumque 80 × 4.

Hab. in foliis languidis Solani Dulcamaræ prope Kecskemét Hungariæ. — A Cercospora Dulcamaræ (Peck) Ell. differt conidiis majoribus magisque septatis.

58. Cercospora agnostoica Spegazz., Fungi Paulist., Rev. Mus. La 8657 Plata t. XV p. 45 (1908). — Maculis amphigenis suborbicularibus 1-10 mm. diam. pallide tabacinis, centro non v. vix cinerescentibus, obsolete determinatis, sæpe totum folium occupantibus; acervulis penicilliformibus pusillis plerumque hypophyllis, hyphis rectiusculis v. subflexuosulis 40-50 ≈ 5-6 continuis v. 1-2-septatis a basi liberis pallide olivascentibus efformatis; conidiis rectiusculis clavulatis 60-75 ≈ 5, apice altero obtusulo altero longe attenuato acutiusculo, 3-5-septulatis hyalinis.

Hab. ad folia languida Symphyti? asperrimi in Horto botanico Sao Paulo Brasilia (USTERI).

59. Cercospora Bomplandiana Speg., Myc. Argent. V, p. 439, in An. 8658 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis repandulo-orbicularibus, 3-5 mm. diam., sordide fusco-cinerescentibus; cæspitulis amphigenis, confertiusculis, subcircinantibus, pusillis, olivaceis; hyphis basi fasciculatis rectiusculis apice rotundatis 30-50 × 5-6, continuis v. 1-3-septatis efformatis, olivaceis, 30-50 × 5-6; conidiis subvermicularibus, 80-120 × 5-6, levibus, chlorinis, 5-7-septatis.

Hab. ad cladodia viva Baccharidis genistelloidis in silvis prope Bompland Misiones Argentina America austr. (P. JÖRGENSEN).

60. Cercospora kansensis Syd., Ann. Myc. V (1907) p. 340. — Ma- 8659 culis epiphyllis, vix perspicuis, indeterminatis, flavidis; cæspitulis hypophyllis, majusculis, effusis, 1-3 mm. diam., obscure olivaceis; hyphis flexuosis, decumbentibus, longissimis, c. 300-500 μ. longis,

remote septatis, non ramosis, olivaceo-fuscis, 3-5  $\mu$ . crassis; conidiis cylindraceis, rectis, utrinque obtusis, 1-3-septatis, non constrictis, primo subhyalinis, dein dilute olivaceo-brunneolis, 25-35  $\times$  5-7.

Hab. in foliis Cardui altissimi, Lebanon, Kansas Americæ bor. (E. Bartholomew). — Cerc. ferrugineæ et Cerc. Absinthii habitu similis.

61. Cercospora sublateritia P. Henn., in Fl. du Bus- Moy. Congo, 8660 Ann. Mus. du Congo, v. II, fasc. II (1904) p. 104. — Maculis obsoletis v. subpallidis rotundatis; cæspitulis hypophyllis rotundatis vel effusis, lateritiis; hyphis usque ad 250 μ. longis, 4-7 μ. cr., ramosis, septatis, hyalino-lateritiis; conidiis clavatis vel subfusoideis, pluriguttulatis dein pluriseptatis, 40-80 × 3,5-4, pallide lateritiis.

Hab. in foliis Vernoniæ sp., Sonso Congo Africa (VAN-DERYST).

62. Cercospora Rudbeckiæ Peck, N. Y. St. Mus. Bull. 131 (1909) 8661 p. 19. — Maculis irregularibus, subconfluentibus brunneis v. viridi-brunneis; hyphis hypophyllis, cæspitosis, 75-100 × 5-6, flexuosis, leniter septatis; conidiis subcylindraceis v. sursum attenuatis 1-3-septatis, 20-90 × 5-6.

Hab. in foliis viventibus Rudbeckiæ laciniatæ, prope Painted Post, Steuben co. Amer. bor. — Cæspituli Ramulariæ Rudbeckiæ similes, vero hyphæ longiores, magis congestæ, coloratæ.

63. Cercospora brunnea Peck, Bull. Torr. Bot. Cl. XXXVI (1909) 8662 p. 156. — Cæspitibus hypophyllis, minutis, dense effusis, maculas angulares, sæpe confluentes, brunnescentes, 2-5 mm. latas occupantibus; hyphis confertis, flexuosis, 1-3-septatis, brunneis, 60-100 × 5-6; conidiis cylindraceis v. subclavatis, sæpe curvatis, subhyalinis, 40-60 × 5-6.

Hab. in foliis Prenanthis altissimæ, Rogers Arkansas Amer. bor. (E. Bartholomew). — Differt a C. Prenanthis hyphis brunneis et conidiis septatis.

64. Cercospora Rhagadioli Bubák, Bull. Herb. Boiss. 2 ser. VI 8663 (1906) p. 487. — Maculis rotundis v. oblongis ad margines foliorum irregularibus, usque ad 8 mm. lat., brunneis, indistincte marginatis; cæspitulis minutissimis, brunneolis, hypophyllis; conidiophoris fasciculatis e stomatibus erumpentibus, undulatis superne 3-denticulatis, dilute brunneis, sursum dilutioribus, conti-

nuis,  $30-45 \times 3,5-6,5$ ; conidiis filiformibus, rectis curvulisve apicem versus sensim tenuatis, 4-6-septatis, hyalinis,  $50-90 \times 2-3,5$ .

Hab. in foliis vivis Rhagadioli stellati, Mentenegro (Bubak).

65. Cercospora inconspicua Pat. et Har., Bull. Soc. Mycol. Fr. XXIV 8664 (1908) p. 16. — Maculis amphigenis, orbicularibus, sparsis 4-6 mm. diam., glaucescentibus, non marginatis, cæspitulis præcipue epiphyllis, numerosis, minutis, 40-50 μ. latis; conidiophoris paucis fasciculatis, chlorino-brunneis, cylindraceis, sursum denticulatis, 28-35 × 5, pro more continuis; conidiis elongato-ovatis, concoloribus, continuis, v. 1-2-septatis, 20-30 × 4-6.

Hab. in foliis Calotropidis sp. Chari, Bahr-El-Ghazad, Tchad, Manacori (A. CHEVALIER).

66. Cercospora illinoensis Barthol. Fungi Columb. (1908) n. 2611. 8665

— Diagnosis desideratur.

Hab. in foliis Asclepiadis syriacæ, Illinois Amer. bor.

67. Cercospora peronosporoidea Pat. et Har. Bull. Soc. Mycol. Fr. 8666 XXIV (1908) p. 16. — Maculis griseis, parum notabilibus, cæspitulis hypophyllis, olivaceis, densis velutinis; hyphis erectis 5-10-cæspitosis, brunneis, cylindraceis, prope apicem alte dentatis, 10 μ. cir. longis, 5-6 μ. cr., transverse pluriseptatis; conidiis bacillaribus, inferne regulariter attenuatis, superne obtusis, multiguttulatis, e hyalino chlorinis, 75-90 × 4-6.

Hab. in foliis Asclepiadeaceæ sp., Chari infer., Fort-Lamy et Mondjafa (A. Chevalier).

68. Cercospora Pircuniæ Speg., Myc. Arg. V, p. 441, in An. Mus. 8667 Nac. Buenos Aires XX (1910). — Maculis amphigenis sinuatis, 1-3 mm. diam., albicantibus determinatis; cæspitulis plerumque hypophyllis centro macularum laxe gregariis, pusillis, compactiusculis; hyphis e subclavulato cylindraceis, 40 ≥ 6, non v. 1-septatis sursum pauci-denticulatis; conidiis cylindraceis continuis v. 2-3-septatis, utrinque obtusiusculis, 20-60 ≥ 4-6, rectis v. leniter curvulis, fumosis.

Hab. ad folia languida Pircuniæ dioicæ, Pereira prope La Plata Argentina Amer. bor.

69. Cercospora dubia (Riess) Bubák, Ann. Mycol. VI (1908) p. 29, 8668 non Wint. — Ramularia dubia Riess — Syll. IV p. 216. — Cercospora dubia v. Atriplicis Bondarz. in Act. Horti Petrop XXVI (1906) p. 51 extr. — Conidiophora 45-62 × 4,5-6,5; conidia 3-septata 38-55 × 4,5-7, ad septa subconstricta.

Hab. in foliis Atriplicis hastatæ, A. nitentis, A. patulæ in Germania, Bohemia, Rossia. — Ab hac differt spec. seq.

70. Cercospora Chenopodii Fres. Beitr. p. 92, Sacc. F. ital. fig. 680, 8669 Bubak in Ann. Mycol. IV (1908) p. 29. — Cercospora dubia Wint., Hedw. 1883 p. 10. — A præcedente dignoscitur conidiophoris  $50-90 \times 4,5-6,5$ ; conidiis 4-6-septatis,  $50-70 \times 5-7$ , non constrictis, Hab. in foliis vivis Chenopodii albi in Germania, Italia,

Bohemia.

71. Cercospora Achyranthis Syd., Ann. Mycol. VII (1909) p. 171. 8670 - Cæspitulis in maculis fuscis v. pallidis insidentibus, in greges rotundatos v. irregulares c. 2-6 mm. diam. densissimos, brunneolos; hyphis fuscis septatis, subinde ramulosis, nodulosis, usque ad 200 μ. long., 4-6 μ. cr.; conidiis cylindraceo-filiformibus, 5-10-septatis, subhyalinis,  $50-125 \approx 3-6$ .

Hab. in foliis Achyranthis bidentatæ var. japonicæ Ome Musashi, Japonia.

72. Cercospora smilacina Spegazz, Fungi Paulist., Rev. Mus. La 8671 Plata t. XV, p. 46. — Maculis parvis 1-3 mm. diam. pallidis præcipue ad epiphyllum ubi sæpe albescentibus areola fusco-atra sæpius latiuscula cinctis; acervulis subdimorphis olivaceis erumpenti-superficialibus; epiphyllis paucis subcentralibus subcircinantibus ex hyphis dense constipatis continuis 45-55 × 5-7 v. 1-3septatis olivaceis efformatis, conidiis clavulatis 40-50 × 3-4, curvulis e hyalino chlorinis ornatis; acervulis hypophyllis sat numerosis totam fere maculam obtegentibus ex hyphis elongatis simplicibus ramis ramulosis rectiusculis multiseptatis 72-120 × 5-6, olivaceis efformatis, conidiis lineari-clavulatis, 3-5-septatis, 75-100 × 4, fumoso-chlorinis donatis.

Hab. ad folia viva Smilacis cujusdam prope Sao Paulo Brasilia (USTERI). — Species C. nubilosæ Ell. et Ev. affinis sed sat distincta videtur.

73. Cercospora Miyakei P. Henn., Engl. Jahrb. XXXVII (1905) 8672 p. 166. — Maculis flavo-brunneis, rotundato-angulatis v. confluentibus; cæspitulis hypophyllis, hyphis erectis, fasciculatis, septatis vix ramosis, denticulatis, fuscidulis, 60-200 × 3-4; conidiis longe cylindraceis subclavatis, 5-12 obsolete septatis, 60-120 × 4-4,5, brunneis.

Hab. in foliis Smilacis herbaceæ var. nipponicæ, Meguro Tokyo Japoniæ (MIYAKE).

74. Cercospora Cordylines P. Henn. — Syll. XVIII pag. 611. — 8678

Hujus est species homonyma et posterior: Cerc. Cordylines Speg. Myc. Argent. V, p. 439, in An. Mus. Nac. Buenos Aires XX (1910) et Fung. Paulist. in Rev. Mus. La Plata t. XV pag. 45, reperta in eadem Cordyline dracænoide in hortis Santa Catalina Argentina (Spegazzini) et Sao Paulo Brasilia (Usteri). Sec. diagnoses cl. Spegazzini l. c. hyphæ conidiophoræ variant 40-60 × 5 et conidia  $15-60 \times 5$ , 2-5-septata (Argentina) et conidia  $20-77 \times 5$ , 3-9-septata (Brasilia).

75. Cercospora contraria Syd., in De Wildem. Flore Bas- et Moy 8674 Congo t. III, fasc. I (1909) Extr. p. 21. — Maculis amphigenis, in epiphyllo magis perspicuis et sordide griseo-brunneis, dein arescentibus, 3-10 mm. diam.; cæspitulis amphigenis, præcipue epiphyllis, sparsis v. aggregatis, minutissimis, atris; hyphis e basi stromatica 20-50 u. cr. oriundis, dense fasciculatis, brevibus, 15-25 × 3-4, simplicibus, non septatis, olivaceo-brunneis; conidiis cylindraceis, 5-9-septatis, plerumque rectis, dilute olivaceis, 50- $100 \times 3-4$ .

Hab. in foliis Dioscore e sp., Kisantu Congo, Africa (VAN-DERYST).

76. Cercospora Epipactidis C. Mass. ap. Sacc. in Ann. Mycol. IX (1911) 8675 p. 256. — Maculis fusco-rubiginosis elongatis, internerviis, vulgo lateraliter confluentibus; cæspitulis hypophyllis minutissimis, punctiformibus, nigris, crebro disseminatis; conidiophoris 1-3-septatis, rubiginosis, apicem versus decoloratis, subhyalinis, simplicibus rectiusculis v. varie sinuoso-inflexis, 40-100 × 4-6; conidiis subacicularibus sursum attenuatis, hyalinis, septatis, usque ad 130 × 4.

Hab. in foliis Epipactidis palustris, in sabulosis secus fl. Athesim, S. Michele prope Veronam, Italiæ borealis (C. Massa-LONGO).

77. Cercospora scandens Sacc. et Wint. — Syll. IV p. 476 — var. 8676 macrospora C. Mass., Osserv. fitolog. in Madonna Verona v. II (1908) Extr. p. 7. — Maculis foliorum subrotundis, parvis, fuligineis, dein centro expallentibus, et zona luteola cinctis: cæspitulis epiphyllis, hyphis fuliginosis fasciculatis, continuis, rarius 1-2-septatis, simplicibus, superne alterne et inflexo-denticulatis, vulgo 40-60 × 45; conidiis elongatis, aciculari-obelavatis, hyalinis, falcatis, sursum attenuatis, 80-130 × 4-4,5, primo continuis, demum basi septatis.

Hab. in foliis Tami communis pr. Tregnago, Verona, Ital. bor. — An species distincta?

78. Cercospora Caladii Cke — Syll. IV p. 478 — var. Colocasiæ v. 8677 Höhnel, Fragm. z. Myk., Sitzb. R. Ak. d. Wiss. Wien, Bd. CXVI, Abt. I (1907) p. 150. — Maculis amphigenis, subrotundis, brunneis, atro-marginatis, concentrice zonatis, 3-7 mm. diam. cæspitulis copiosis, punctiformibus, e stomatibus erumpentibus, atro-brunneis; conidiophoris 30-45 × 5 sursum 1-2-denticulatis; conidiis subhyalinis v. dilute brunneolis, 4-5-cellularibus 50-100 × 4, sursum sensim tenuatis.

Hab. in foliis Colocasiæ sp., Malifa in ins. Samoa (Dr. Rechinger).

79. Cercospora Chevalieri Sacc. Cercospora Amorphophalli Pat. et 8678 Har., Bull. Soc. Mycol. Fr. XXIV (1908) p. 15 non vel vix P. Henn. — Maculis exaridis, amphigenis, sparsis v. confluentibus, angulosis v. suborbicularibus, albidis, fusco-cinetis; cæspitulis, hypophyllis numerosis, minutis, 50-80 μ. latis; hyphis fasciculatis, erectis, brunneolis apicem versus denticulatis, 80 μ. circiter longis, 6 μ. cr.; conidiis linearibus, flexuosis, utrinque obtusis, 6 (pro more) septatis, subhyalinis, 80 × 5.

Hab. in foliis vivis Amorphophalli sp. Oubangui, in medio Tomi Krebedje Africæ (A. Chevalier).

80. Gercospora Polygonati Rostr., Bot. Tidsskr. XXVI (1905) p. 314. 8679 — Maculis subrotundis, pallidis, atro-purpureo-marginatis; cæspitulis hypophyllis, minutissimis, copiosis, primo rubentibus, dein brunneis; conidiis, 60-70 > 5-6.

Hab. in foliis Polygonati multiflori in Dania (ROSTRUP). Affinis C. Majanthemi sed maculæ omnino diversæ.

81. Gercospora microstigma Sacc. in Ann. Mycol. X (1912) p. 315. 8680 — Maculis elongatis versiformibus, ex albido et fuligineo variegatis; cæspitulis minutissimis, punctiformibus, crebre gregariis, hypophyllis, in areis albidis sitis, 30-40 μ. diam.; hyphis fasciculatis, totis brunneis, subflexuosis, sursum parce denticulatis, subcontinuis; conidiis bacillaribus, æqualibus, utrinque obtusulis, sub-5-septatis, 32-36 × 2,5, sæpe curvulis, subhyalinis.

Hab. in foliis languidis Caricis laxifloræ var. London Ontario Amer. bor. (J. Dearness). — A Cerc. caricina differt cæspitulis crebris, extremæ parvitatis, maculis peculiaribus, conidiis non obclavatis nec continuis etc.

82. Cercospora Oryzæ Miyake, Pilze Reispfl. Japan., (Journ. College 8681 Agricult. Tokyo II (1910) p. 263, t. XIV, p. 71-72. — Cæspitulis conidiferis ex stomatibus exeuntibus, solitariis v. 2-3 congre-

gatis, obscuris, 3-pluriseptatis, 88-140 = 4-5, apice obscurioribus; conidiis cylindraceis v. subclavatis 3-10-septatis, 20-60 = 5.

Hab. in glumis brunnescentibus Oryzæ sativæ, Ehime Japonia.

83. Gercospora longipes Butl., Mem. Dep. Agric. in India, Bot., 8682 Ser. I (1906) p. 44, tab. 5-6. — Maculis elongatis, amphigenis, sæpe confluentibus, primo sanguineis, arescendo stramineis, brunneo-cinctis; hyphis in cæspitulos gregarios collectis, plerumque hypophyllis, flexuosis, brunneis, sursum geniculatis v. denticulatis, 100-200 × 4; conidiis obclavatis, sursum attenuatis, rectis v. curvulis, 4-6-septatis, 40-80 × 5, hyalinis.

Hab. in foliis Sacchari officinarum, cui nocet, in India orient.

- CERCOSPORINA Speg., Myc. Arg. V, p. 424, in An. Mus. Nac. Buenos Aires XX (1910) (Etym. Cercospora, cui peraffine genus).

   Biogena foliicola; cæspituli erumpentes ex hyphis olivaceis apice denticulatis simplicibus efformati; conidia vermicularia pluri-septata hyalina. A Cercosporella hyphis olivaceis, a Cercospora conidiis hyalinis recedens; sed multæ aliæ Cercosporæ species, jam descriptæ, huc ducendæ sunt.
- 1. Cercosporina asparagicola Speg. l. c. p. 424. Maculis solitariis 8683 v. confluentibus subellipticis 2-5 mm. diam., pallescentibus late purpureo-areolatis; hyphis confertis flexuoso-nodulosis 1-2-septatis apice acutiusculis pauci-papillosis, 40-60 × 5-6; conidiis deorsum leniter incrassatis 50-80 × 3-4, 3-5-septatis, hyalinis.

Hab. ad ramulos languidos Asparagi officinalis in hortis La Plata Argentina Amer. austr.

Cercosporina elongata (Peck) Speg., Myc. Argent. V, p. 425, in 8684
 Ann. Mus. Nac. Buenos Aires XX (1910). — Ita vocanda Cercospora elongata Peck, Syll. IV 442.

Hab. quoque, in foliis Dipsaci silvestris, in pratis La Plata Argentina Amer. austr.

- 3. Cercosporina ricinella (Sacc. et Berl.) Speg. l. c. p. 429. Ita 8685 vocanda est Cercospora ricinella Sacc. et Berl., Syll. IV p. 456.

  Hab. quoque, in foliis Ricini communis, La Plata Argent.

  Amer. austr.
- Cercosporina Tetragoniæ Speg., Myc. Argent. V, p. 425, in An. 8686
   Mus. Nac. Buenos Aires XX (1910). Maculis amphigenis suborbicularibus 5-20 mm. diam., determinatis, concentrice rugulosis,

fuscescentibus; cæspitulis epiphyllis, laxe gregariis, minutissimis, olivaceis ex hyphis  $20\text{-}30 \times 4\text{-}5$ , nodulosis, fumoso-olivaceis compositis; conidiis subacicularibus deorsum sensim leniterque incrassatis rectiusculis,  $60\text{-}85 \times 4\text{-}5$ ,  $3\text{-}5\text{-}\mathrm{septatis}$ , hyalinis.

Hab. ad folia Tetragoniæ expansæ in hortis La Plata Argentina Amer. austr.

5. Cercosporina stenolobiicola Speg., Myc. Argent. V, p. 428, in 8687 Anal. Mus. Nac. Buenos Aires XX (1910). — Maculis solitariis v. laxe gregariis, 1-5 mm. diam., amphigenis suborbicularibus, determinatis, sordide rufescentibus; cæspitulis sæpius amphigenis minutis olivaceis; hyphis rectiusculis, 50-75 × 5-6, 1-3-septatis parce denticulatis, olivaceis; conidiis vermicularibus hyalinis, 75-125 × 3,5, multiguttulatis obsolete septulatis, supra angustissime linearibus.

Hab. ad folia viva v. languida Stenolobii stantis in sepibus prope Tucumán Argentina Amer. austr.

6. Cercosporina sphæralceicola Speg., Myc. Arg. V. p. 427, cum 8688 icon., in An. Mus. Nac. Buenos Aires XX (1910) — Maculis amphigenis suborbicularibus, 2-5 mm. diam., vix pallescentibus indeterminatis, ægre perspicuis; cæspitulis amphigenis densiuscule gregariis erumpentibus penicilliformibus, minutis, olivaceis; hyphis olivaceis continuis v. 2-3-septatis, rectiusculis, vix denticulatis 100-150 × 6-7; conidiis rectis elongato-subclavulatis, 5-10-septatis, hyalinis 100-200 × 5-6.

Hab. ad folia languida Sphæralceæ patagonicæ in horto La Plata Argentina Amer. austr.

7. Cercosporina Caracallæ Speg., Myc. Argent. V, p. 425, in An. 8689 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis angulosis repandulis, 3-7 mm. diam., determinatis centro, sordide cinerescentibus fusco-areolatis; cæspitulis sæpius hypophyllis densiuscule gregariis sordide olivaceis ex hyphis erectiusculis fiexuosulis, 40-80 × 5-6, subcontinuis, denticulatis constitutis; conidiis acicularibus arcuatulis, deorsum non vix vel incrassatis 50-75 × 4, 3-5-septatis, hyalinis.

Hab. ad folia languida Phaseoli Caracallæ in silvis prope Tucumán, Argentina Amer. austr. — Cum C. phaseolina Speg. et C. canescente (Ell. et Mit.) non comparanda.

8. Cercosporina sensitivæ Speg., Myc. Argent. V, p. 427, in An. 8690 Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis difformibus rufescentibus determinatis, 2-5 mm. diam.; cæspitulis

hypophyllis laxe gregariis minutissimis, compactiusculis, olivaceis, 40-60  $\mu$ . diam., ex hyphis 1-septatis, clavulatis, levibus 14-18  $\approx$  6, efformatis; conidiis vermicularibus, curvulis v. sigmoideis, 30-75  $\approx$  2-2,5, multiguttulatis, hyalinis.

Hab. ad folia viva Mimosæ sensitivæ in pratis Orám, Argentina Amer. austr.

9. Cercosporina physalidicola Speg., Myc. Argent. V, p. 427, in An. 8691 Mus. Nac. Bnenos Aires XX (1910). — Maculis amphigenis sub-indeterminatis 3-7 mm. diam., leniter bullosis, pallescentibus; cæspitulis hypophyllis laxe gregrariis, minutis, olivaceis; hyphis rectiusculis 50-150 ≈ 5-6, olivaceis, 3-5-septatis, non denticulatis; conidiis subclavatulo-vermicularibus 3-5-septatis, hyalinis.

Hab. ad folia viva v. languida Physalidis viscosæ, Mármol prope Buenos Aires Argentina Amer. austr. — A C. Physalidis (Ell.) magnitudine omnium partium sat differre videtur.

10. Cercosporina Mate Speg., Myc. Arg. V, p. 426, in An. Mus. 8692 Nac. Buenos Aires XX (1910). — Maculis amphigenis orbicularibus, 5-10 mm. diam., cinerescentibus determinatis, sæpe late purpureo-limitatis; cæspitulis epiphyllis erumpentibus subhemisphæricis, 50-150 μ. diam., minutis, olivaceis; hyphis brevibus chlorinis vix flexuosis parceque denticulatis continuis v. 1-3-septatis, 15-40 × 3-4; conidiis subvermicularibus vix curvulis 30-60 × 3-4, 1-3-septatis, hyalinis.

Hab. ad folia viva Ilicis paraguariensis prope S. Ignazio (J. Torre) et prope Santa Ana (B. Zamboni), Argentina Amer. austr.

11. Cercosporina hydrangeicola Speg. Myc. Argent. V, p. 426, in 8698 An. Mus. Nac. Buenos Aires XX (1910). — Maculis amphigenis orbicularibus v. confluendo ellipticis, purpureo-areolatis; cæspitulis sæpius epiphyllis densiuscule gregariis minutis olivaceis, ex hyphis teretiusculis non v. vix flexuosis, 2-7-septatis, 80-100 × 5-6; conidiis vermicularibus rectiusculis deorsum lenissime incrassatulis, 3-5-septatis, hyalinis, 80-150 × 5.

Hab. ad folia languida Hydrangeæ hortensis, La Plata Argentina Amer. austr.

12. Cercosporina jatrophicola Speg., Myc. Argent. V, p. 426, in An. 8694 Mus. Nac. Bueno Aires XX (1910). — Maculis amphigenis suborbicularibus, 1-7 mm. diam., cinerescentibus determinatis anguste sordideque fusco-areolatis; cæspitulis epiphyllis, olivaceis minutis, hyphis rectiusculis 40-80 × 5-6, continuis v. 1-2-septatis vix

denticulatis, conidia vermicularia leniter curvula v. sigmoidea, 3-5-septata, hyalina,  $50-80 \times 3-4$  gerentibus.

Hab. ad folia viva Jatrophæ macrocarpæ in dumetis prope Tucumán Argentina Amer. austr.

13. Cercosporina daturicola Speg., Myc. Argent. V, p. 425, in An. 8695 Mus. Nac. Buenos Aires XX (1909). — Maculis subamphigenis orbicularibus, 2-5 mm. diam., candidis, areola angusta vix fuscescente cinctis; cæspitulis penicilliformibus ex hyphis ima basi coalescentibus cæterum liberis apice vix tortuosis, denticulatisque, subcontinuis, 80-100 ≈ 5-6, fusco-fuligineis; conidiis vermicularibus sæpius triseptatis non v. lenissime subcurvulis, 80-100 ≈ 4-5, hyalinis.

Hab. ad folia languida Daturæ Stramonii, La Plata, Argentina Amer. austr. — A C. crassa Sacc. et C. Daturæ Peck notis plurimis desciscens.

- CORYNESPORA Güssow, in Zeitschr. f. Pflanzenkr. XVI (1906) p. 10, um iconib. (Etym. coryne clava et spora) A gen. Cercospora distinguitur conidiis obclavatis et (teste Güssow) breviter catenulatis; a gen. Polydesmo conidiophoris longis et septatis et conidiis ad septa non constrictis. Videtur hinc genus intermedium, sed vix distinctum.
- Corynespora Melonis (Cooke) Sacc. Cercospora Melonis Cooke 8696
   Syll. XVIII p. 598 et XIX p. 353 Corynespora Mazei Güssow
   l. c. p. 10-13, fig. 1-5.

Hab. in foliis e fructibus immaturis Cucumeris Melonis, cui valde perniciosa, in Britannia et Germania.

## Sect. 7. Helicosporæ.

HELICOSPORIUM Nees — Syll. IV p. 557, X p. 681, XI p. 638, XIV p. 1107, XVI p. 1081, XVIII p. 625.

Helicosporium Tiliæ Peck, Bull. Torr. Bot. Club. XXXIV (1907) 8697
 p. 103. — Velutinum, confluendo effusum et maculas olivaceo-brunneas efformans; hyphis erectis, septatis, apice plerumque pallidioribus, 5-8 μ. cr.; conidiis in massam congestis, subhyalinis, 5-6 nucleatis, obscure septatis, 8 μ. cr.; massa conidiorum 20-22 μ. lata.

Hab. in cortice Tiliæ americanæ prope Emma Missouri Amer. bor. (C. H. Demetrio).

2. Helicosporium Richonis Boud. Ic. Mycol. III, tab. 599 (Ser. IV p. 8, 8698 n. 317) (1910). — Minutissimum, nigro-maculans, hyphis sterilibus repentibus fuligineis, fertilibus ex iis assurgentibus brevibus, concoloribus, 1-septatis, undulatis, 30-40 × 5-8, apice conidiophoris; conidiis ovatis ex filamento nigro-olivaceo, multiseptato intus granuloso, spiraliter 8-10-convoluto formatis, 50-80 × 50-60.

Hab. in ramo dejecto putri Populi, Saint-Amand-sur-Fion Galliæ (Doct. RICHON). — Affine Hel Mülleri sed distinctum.

- 3. Helicosporium Ellisii Cooke, Black Moulds, tab. 26, f. 24 (absque dia-8699 gnosi) (1877). Conidiophoris erectis, strictis, obsolete septatis, non constrictis, filiformibus, 500-600 × 4-5, brunneis; conidiis (acrogenis?) cylindricis, spiraliter convolutis, 4-5-septatis, non constrictis hyalinis, totis (convolutis) 22 μ. latis, spiriculis binis-ternis, 4-5 μ. cr.
  - Hab. ad truncos (?) in America boreali. Diagnosis ex icone.
- 4. Helicosporium ramosum (Berk. et Sm.) Massee, Brit. Fungus Flora 8700 III (1893) p. 440 et p. 442, f. 29. Helicocoryne ramosa Berk. et Sm. in Gard. Chron. Apr. 1882. Cæspitulis effusis, sæpe latis, velutinis, e brunneo olivaceis; hyphis sterilibus repentibus, fertilibus ascendentibus vage ramosis, brunneis, septatis, 5-7 μ.cr., lateraliter conidigeris, conidiis cylindricis denique dense spiraliter convolutis, pluriseptatis, olivaceo-brunneis, totis ellipsoideis v. obtuse fusoideis, 60-80 × 30-40, spiriculis 7-9, contiguis.

Hab. ad ligna uda in Britannia.

5. Helicosporium Phragmitis v. Höhn. Ann. Mycol. III (1905) p. 338. 8701 — Cæspitulis effusis, cm. aliquot extensis, brunneolo-griseis, ob conidia rubello-pulverulentis; hyphis infra ramosis, sursum simplicibus, tenui-tunicatis, griseo-brunneolis, levibus, septatis, ex cellulis 20-25 × 3-5 formatis, sursum tenuatis et pallidioribus; conidiis copiosis, hyalinis, coacervatis rubescentibus, in hyphæ denticulis patentibus 2-3 × 1,5 insertis, in spiram 15-20 μ. latam ter quater revolutis, 110 × 1,5-2,7, distincte crebro septatis, multiguttulatis.

Hab. in culmis putridis Phragmitis communis pr. Tulln Austria infer. (V. Höhnel).

# Fam. 3. Stilbaceæ SACC.

Ser. 1. HYALOSTILBEÆ Sacc.

## Sect. 1. Hyalosporæ

STILBUM Tode — Syll. IV p. 564, X p. 681, XI p. 640, XVI p. 1086, XVIII p. 636.

Stilbum sphærocephalum Massee, Kew Bull. (1907) p. 243, fig. 13-8702
 14. — Synnematibus capitatis; capitulis, usque ad 1 mm. diam., stramineis, glabris, demun ob conidia albido-pruinosis; stipite subtereti compressove, levi, in capitulum diffuso, concolore, basi incrassato, fusco, 2 mm. alt., 100 μ. cr.; conidiis ellipsoideis, hyalinis, 7 × 3.

Hab. in vulneribus caulis viventis Philodendri sp. in calidariis hortorum Kew Angliæ. — Affine Stilbo connato sed capitula straminea et conidia minora.

2. Stilbum Kermesi Speg. Myc. Arg. V, pag. 447, in An. Mus. Nac. 8708 Buenos Aires XX (1910). — Substrato toto sordide cinerescente; stipitibus hinc inde laxe gregariis erectis glabris teretibus 2-3,5 mm. long. 80-120 μ. diam., sordide fuscis, ex hyphis arcte coalitis tenuibus 2,5-3 μ. cr. parce septulatis flexuosis denticulatisque pallide fuligineis efformatis, apice abruptiuscule subglobosis et sæpius sublateraliter capitatis, capitulo primo albescente compactiusculo, dein subdiffluente rufescente; conidiis globosis, 6-7 μ. diam., fulvellis, catenulatis, uniguttulatis levibus.

Hab. ad truncos dejectos putrescentes in silvis prope Formosa Argentina Amer. austr. (E. Kermes). — Species habitu S. aurantiaco-cinnabarino Speg. affinis sed conidiorum fabrica longe recedens.

3. Stilbum Theæ (Ch. Bern.) Sacc. et Trott. — Stilbella Theæ Ch. 8704 Bernard Bull. Depart. Agricult. Ind. Néerl. XI (1907) pag. 25, fig. 43-49. — Synnematibus dense gregariis, minutis; stipite cylindrico glabro, nitido, 300-800 μ. longo rubro-brunneo, sursum pallide roseo-aurantio; capitulo globoso roseo 150-300 μ. diam., minutissime pulverulento; conidiis perexiguis, ovoideis, 5-7 × 2,5-4, hyalinis, coacervatis roseolis.

Hab. in ramis Theæ assamicæ, cui valde noxium, in insula Java.

4. Stilbum Elasticæ (Koord.) Sacc. et Trav. — Syll. XX p. 903 -- 8705 Stilbella Elasticæ Koord., Bot. Untersuch. Java (1907) p. 238, f. 49. — Gregarium; synnematibus cylindraceis erectis, 450-650 × 50-100, apice 100-200 μ. diam., levibus; capitulis globosis, obscure rubescentibus, 200 μ. diam.; conidiis continuis, hyalinis, utrinque obtusis, 5-7 × 3-4.

Hab. in cortice Fici elasticæ prope Kaliwiro prov. Kedu, Java majo 1906 (Koorders).

5. Stilbum Simmonsii Rostr., Rep. second Norweg. arctic Exp. 8706 Fram (1906) p. 10. — Sparsum, foliicola, melleum, 1 mm. altum; stipitibus fibrosis, glabris, 0.6 mm. altis, 0,3 cr., capitulis hemisphæricis; conidiis bacillaribus, 2-3 × 0,5.

Hab. in foliis Eriophori polystachii, E. Havne Fjord Norvegiæ.

6. Stilbum incarnatum Junghuhn Præmissa Fl. crypt. Javæ p. 6, 8707 fig. 4 (1838). — Capitulo globoso, sæpius basi impresso, persistente, adulto intus nigro sed strato conidiorum roseo v. carneo-roseo undique cincto; conidiis minimis globosis; stipite subæquali erecto, rigido, atro, primum capitulo concolore, demum atro.

Hab. in culmis Bambusæ arundinaceæ in insula Java.

— Fungillus 1,5-2,5 mm. altus, initio subgelatinosus Tuberculariam æmulatur, dein elongatur et formam Stilbi induit.

7. Stilbum polyporicola (P. Henn.) Sacc. — Stilbella polyporicola P. 8708 Henn., Engl. Jahrb. XXXVIII (1905) p. 118. — Synnematibus fasciculatis v. subsingularibus, erectis, pallidis, c. 1,5-2,5 mm. altis, stipite cylindraceo c. 30-50 μ. cr., flavidulo, basi fuscidulo, apice subhemisphærico-capitato; capitulis c. 120-180 μ. latis 80-100 μ. altis, hyphis hyalinis, 10-12 × 1; conidiis acrogenis ellipsoideis, hyalinis, 3,5-4 × 1,5.

Hab in Polyporo putri, Amani Usambara or. Africæ (Eichelbaum). — A St. hyalino diversum.

8. Stilbum maximum (Eichelb.) Sacc. — Stilbella maxima Eichelb., 8709 Verh. naturw. Ver. Hamburg, 3 Folge, XIV (1906) pag. 42. — Synnemate 8 mm. alt. albo, subæquali, 45 μ. cr., apice usque ad 60 μ. incrassato, sæpe ramoso-prolifero; capitulo ovoideo in stipitem decurrente, albido, dein flavido, postremo viridulo; conidiis ex ovoideo cylindraceis 4 × 2, albo-diaphanis, laxe muco obductis, mox solutis.

Hab. in stromate Hypocrellæ sp. in Culcaria scan-

dente parasiticæ, Amani Africæ orient. — Forsitan Hypocrellæ subjectæ st. conidicus.

9. Stilbum Torrendianum Sacc. in Ann. Mycol IX (1911) p. 256. — 8710 Fungicola, subsparsum, minutissimum, totum album; stipite cylindraceo basi non incrassato, 300-400 × 70-80, glabro, ex hyphis filiformibus dense fasciculato-compactis, inferne 2-3 μ. cr. et minutissime granulosis, superne angustioribus, 1,5 μ. cr., sublevibus, in capitulum radiantibus; capitulo globuloso, obtuso, 200 μ. diam., levi, compactiusculo; conidiis ellipsoideis, utrinque rotundatis 5,5-6 × 4, levibus, hyalinis, intus 1-2-guttatis v. granulosis.

Hab. in fungis putrescentibus (Thelephoraceis?) ad truncos in Lusitania (Prof. Torrend). — Ab affini Stilbo fructigeno differt stipite levi, non muriculato et loco.

10. Stilbum flavo-viride (Fuck.) v. Höhnel, Sitzb. k. Ak. d. Wiss. 8711 Wien CXVII (1908) Abt. I, p. 1026. — Ita vocandum est, teste v. Höhnel, Sphæronæma flavo-viride Fuck. — Syll. III p. 618 (Sphæronæmella).

11. Stilbum bæomycioides (Massal.) Sacc. — Ita vocandum Stilbum 8712 resinæ Sacc. et Bres. — Syll. XVIII p. 634 — Coniocybe bæomycioides Massal. in Lotos (1856), Dendrostilbella bæomycioides (Mass.) Lindau Krypt. Fl. Pilze IX p. 305, Coniocybe crocata Körb. Parerg. p. 300.

12. Stilbum coccophilum Sacc. Not. Mycol. IX, in Annales Myc. 8718 v. V (1907) pag. 178. — Gregarium, parasiticum, capitato-stipitatum, totum album v. albidum, 800-900 μ. altum; synnematibus ex mycelio filiformi, ramuloso, repente, 2-3 μ. cr. surgentibus, filiformibus, 40 μ. cr., glabris, ex hyphis angustissimis 4-5 μ. cr., hyalinis, dense stipatis formatis; capitulo globuloso, basi obtuso (non sensim in stipitem tenuato) 200 μ. diam., ex hyphis radiantibus formato, compactiusculo, glabro; conidiis oblongo-fusoideis, 6,5-7 × 2,5, utrinque acutulis, hyalinis (rarius subcatenulatis).

Hab. ad ramos Fici capensis, parasitice in scutellis Ceroplastis Rusci pervasis a Thoracantha cyanea, in horto botanico Panormitano Siciliæ (prof. JOANN. HECT. MATTEI).

TILACHLIDIUM Preuss — Syll. IV p. 576, XVIII p. 636.

Tilachlidium subulatum Annie L. Smith, Trans. Brit. Myc. Soc. 1908 8714;
 V. III (1909) p. 122, tab. VI, fig. 8 a, b, c. — Synnematibus gregariis, flavidis v. griseolo-albis, erectis, 0,5-2 mm. altis, cylin-

draceis, sursum sensim tenuatis, ubique ramulos patentes capituligeros gerentibus; ramulis (conidiophoris) 25-35  $\mu$ . long.; conidiis cylindraceo-oblongis, 5-7  $\approx$  2, continuis, hyalinis, capitula minuta, globosa 5-6  $\mu$ . diam. formatibus.

Hab. in fragmentis vegetabilibus, Jnverness-shire et Swaraton (W. L. W. Eyre). — Tilachl. pinnato videtur simile.

- ISARIA Pers. Syll. IV pag. 584, X p. 687, XI p. 641, XIV p. 1109, XVI p. 1084, XVIII p. 639.
- Isaria edessicola Speg., Myc. Arg. V, p. 449, in An. Mus. Nac. 8715
   Buenos Aires XX (1910). Synnematibus erumpentibus confertis
   erectiusculis, 3-7 mm. alt., gracilibus tenuibus dense patentimque
   ramulosis, roseolis v. subluteolis, ramulis acutiusculis denticulatis
   farinosulis; conidiis ellipsoideo-cylindraceis, utrinque rotundatis,
   2-3 × 0,75-1, eguttulatis levibus hyalinis.

Hab. in corpore Edessæ (Pentatomæ) meditabundæ inter folia dejecta Parque Roca Tucuman Argentina Amer. austr.

2. Isaria citrinula Speg. Myc. Argent. V, p. 449, in An. Mus. Nac. 8716 Buenos Aires XX (1910). — Synnematibus brevibus densiuscule gregariis abrupte majusculeque subgloboso-capitatis, 2-3 mm. long., 1 mm. cr., ex hyphis tenuissimis subcontinuis ramulosis arcte coalescentibus efformatis; capitulis subglobosis v. obovatis pulverulentis, primo citrinis v. sulfureis serius pallescentibus; conidiis globosis, 2-2,5 μ. diam., catenulatis, hyalinis, levibus, eguttulatis.

Hab. ad chrysalides Lepidopterorum emortuas in Parque Roca Tucumán Argentina Amer. austr.

3. Isaria araneosa Speg., Myc. Arg. V, p. 448, in An. Mus. Nac. 8717 Buenos Aires XX (1910). — Late effusa, candida v. roseo-subflavescens, araneoso-velutina; hyphis fertilibus v. conidiophoris confertissimis erectiusculis sæpius abrupte bifidis deorsum incrassatulis sursum attenuatis acutatis, 10-15 × 1,5-2, continuis, hyalinis; conidiis utrinque plus minusve obtusis, 3-4 × 1,5-2, non v. leniter inæquilateralibus, levibus, hyalinis, eguttulatis.

Hab. in Lecanio cypridioide ad folia viva Citri deliciosæ, La Plata Argentina Amer. austr.

4. Isaria elegantula Syd. in Hedwigia XLIX (1909) p. 84. — Synne- 8718 matibus sparsis solitariis vel pluribus basi fasciculatis, apice breviter ramosis, raro simplicibus, totis 1 ½-2 mm. altis; stipite tereti, flavo-brunneo, 100-150 μ. crasso, ex hyphis subhyalinis septatis 3-4 μ. crassis composito; ramis 2-6 brevissimis patentibus,

omnibus clavula albida obtusa minuta cylindracea usque ad 200  $\mu$  crassa terminatis; hyphis clavulæ conidiophoris cylindraceis hyalinis 10-15  $\mu$ . longis, 3  $\mu$ . cr.; conidiis subbacillaribus, uno fine plerumque latioribus, altero acutis, continuis, hyalinis, 5-7  $\approx$  1-1 $^{4}$ /<sub>2</sub>.

Hab. in ramis emortuis Murrayæ exoticæ, Para, America austr. (C. F. BAKER).

5. Isaria amorpha v. Höhn., Stzb. k. Ak. d. Wiss. Wien CXVIII, 8719 Abt. I (1909) p. 415. — Entomogena; mycelio crasse tunicato, insecta penetrante; synnematibus copiosis, proteiformibus, 2-7 mm alt., modo cylindraceis simplicibus apice globulosis, modo ovoideo-dilatatis, modo superne 2-3 ramulos tenues breves capituligeros emittentibus, modo depressis, irregularibus fere, thelephoroideis; capitulis albidis (?) ex hyphis ramoso-dendroideis, intricatis, elongatis formatis; conidiophoris solitariis v. subglomeratis, acro-pleurogenis, globoso-phialiformibus, 2-4 μ. lat., apice acutis et conidium singulum cylindraceum 3-4 × 1-1,5 gerentibus.

Hab. in corpora majusculæ Cicadæ sp. Sukabumi Javæ (Major Ouwens).

6. Isaria lecaniicola Jaap, Verh. Bot. Ver. Prov. Brandenb. (1908) 8720 p. 49, Ann. Myc. VI (1908) p. 218, Exsicc. n. 298. — Synnematibus gregariis, cylindraceis v. clavatis, simplicibus, subinde sursum furcatis, albis, dein ochraceo-flavis v. brunneolis, 2,5-4, sæpius 3 mm. altis, 0,2-04 mm. cr., ex hyphis hyalinis v. dilute flavis 2,5-3,5 μ. cr. indistincte septatis formatis; conidiophoris lateralibus, indivisis, 1-2-cellularibus elongatis, spinuliformibus pseudosterigmate 1, rarius 2-3 præditis; pseudosterigmatibus 8 μ. longis; conidiis ovoideis, altero fine rotundatis, hyalinis, sæpe obsolete 2-guttulatis, 5-8 × 2-3,5.

Hab. parasitice in Lecanio Persicæ ad ramos Coryli Avellanæ pr. Eisenkappel Carinthiæ (JAAP).

7. Isaria abietina v. Höhn., Stzb. k. Ak. d. Wiss. Wien CXVIII, 8721 Abt. I (1909) p. 416 cum icon. — Entomogena, flavido-grisea, insecta hinc inde investiens; synnematibus solitariis v. confertis, conico-subulatis, 3 mm. altis, basi 300 μ., superne 55 μ. crassis, ex hyphis hyalinis, parallele fasciculatis, 2-3 μ. cr. formatis; sursum patenter divaricato-ramulosis, ramulis ad 160 ≈ 55; conidiis minutissimis, subrotundis, glomerulato-acrogenis (dimensionibus non indicatis).

Hab. parasitice in corpore Cimicis spec. arboricolæ, Sukabumi Java (Major Ouwens).

Syll. fung. XXII (VII-1913)

8. Isaria Guignardi Maheu, Ann. Sc. Nat. ser. 9, III (1906) p. 113-8722 115, fig. 1-4. — Mycelio albo-viridescente, copioso, parce ramoso, septato, ex cellulis 14 × 5 formato; synnematibus ex cellulis subseriatis 12-16 × 3-4, brunneolis, dense fasciculatis compositis, filiformibus concoloribus 4-5 mm. altis, basi simplicibus v. 2-4-furcatis, 500 µ. cr., sursum divaricato-ramosis, spiculas formantibus, ramulis conidiophoris subverticillatis e basi inflatula sensim cuspidatis, 55 × 6-8 (basi); conidiis solitarie acrogenis, oblongo-ellipsoideis, 7 × 2, hyalinis. eguttulatis, parcis (an geminis?).

Hab. in corpore Quedii mesomelini in cryptis Lutetiæ Parisiorum Gallia.

9. Isaria Saussurei Cooke, Veget. Waps p. 53 et p. 54 (icon) (1892) ex 8728 Saussure, Vesp. Soc. t. II, f. 5. — Flavo-aurantia, subfasciculata, filiformis, apice cuspidata, glabrescens (cetera non descripta).

Hab. in thorace et abdomine Polistes americanæ in Antillis et Cayenna. — Forte status conidius Cordicipitis sphæcocephalæ.

10. Isaria elata (Kalchbr.) Sacc. et Trav. — Syll. XIX p. 983, In-8724 stitale elata Kalchbr. Rev. Mycol. II (1880) p. 154, tab. 7, fig. 3.
— Synnemate incompleto e fibris erectis, ramosis, eseptatis, apice liberis, cervinis, in massam carnosam 1,5-2 m. alt. stipato; conidiis copiosissimis, fibris intermixtis, pulverulentis, subglobosis, 4-6 μ. diam., verruculosis, e fusco violascentibus.

Hab. ad ligna? Sikkim, Himalaya (J. Remy). Dubia stirps.

# ATRACTIELLA Sacc. — Syll. IV p. 578.

- 1. Atractiella muscigena (Speg.) Speg. Myc. Arg. V, pag. 447 cum 8725 icon., in An. Mus. Nac. Buenos Aires XX (1910). Ita vocanda est Anthina muscigena Speg. Syll. XIV p. 364. Hyphæ steriles septulatæ sed non articulatæ, 5  $\mu$ . cr.; fertiles relaxatæ, subdichotomice ramulosæ, eximie articulatæ, articulis 20-30  $\approx$  5-8; conidia naviculari-fusoidea, utrinque acuta, 30  $\approx$  7, continua, nubilosa, hyalina.
- ARTICULARIELLA v. Höhn. Fragm. z. Mykol. VI, in Stzb. k. Ak. d. Wiss. Wien CXVIII, Abt. I (1909) p. 410 (Etym. Articularia, cujus est analogum genus). Conidiophora in synnema cylindraceum conglutinata, filiformia, verticillatim pleurogena, breviter emergentia et in vesiculas minutas sporigeras abeuntia. Conidia quina-octona in vesicula inserta, oblonga, continua, hyalina.

Articulariella aurantiaca v. Höhn. l. c. f. 27. — Leptophymatis 8726 aurantiaci (Ell. et Mart.) Sacc. Syll. VIII p. 845, stat. conidioph. — Cæspitulis albis (non aurantiacis!) fere tubercularioideis; hyphis vesiculigeris 20-40 × 2-3; conidiis tereti-oblongis, 6 9 × 1,5-2, hyalinis, levibus.

Hab. in pag. inferiore foliorum Quercus laurifoliæ in America bor., socio Leptophymate, cujus est certe stat. conidiophorus.

ACTINICEPS B. et Br. — Syll. IV p. 579, XI p. 641.

1. Actiniceps Timmii Eichelb., Verh. naturw. Ver. Hamburg, 3 Fge., 8727 XIV (1906) p. 43. — Synnemate longe stipitato, apice piriformicapitato, flavido; stipite nigro, obscure contexto, atro impellucido, 3,4 mm. longo, 30 μ. cr., basi usque ad 90 μ. incrassato, erecto, recto, v. curvulo, sursum in c. 50 ramulos acute subulatos simplices abeunte; ramulis 3-4-septatis, diaphanis, flavo-viridulis, 86 × 4, conidigeris; conidiis minutissimis, ovoideis, 2 × 1,5, hyalinis, muco obvolutis (catenulatis?).

Hab. in ligno putrescente, rarius, Amani Africæ orient. Videtur subaffine Graphio chlorocephalo et Gr. stricto.

COREMIUM Link — Syll. IV p. 581, X p. 687, XI 641, XIV p. 1108, XVIII p. 642.

1. Coremium Elasticæ Koord., Botan. Untersuch. Java (1907) p. 239, 8728 fig. 50. — Gregarium, pusillum, vix 0,5 mm. altum; hyalinum, stipite filiformi, ex hyphis concretis composito, erecto, supra copiose ramoso; conidiis continuis, hyalinis, ovoideis v. ovoideo-oblongis, haud muco obvolutis, acrogenis, typice catenulatis.

Hab. in foliis emortuis Fici elasticæ, Purworedjo, prov.
Kedu Java, oct. 1905 (Koorders)

2. Coremium aureum (Hedge.) Sacc. — Graphium aureum Hedgeock, 8729 17th. Ann. Rep. Miss. bot. Garden St. Louis (1906) p. 94, tab. 9, fig. 5-7. — Mycelio albo, dein aureo, 2-3 μ. diam.; synnematibus capitatis, albis, dein flavis, 50-750 × 10-90, e filamentis parallelis 1-2 μ. diam. constantibus; conidiis primaris hyalinis, obovatis, 4-5 × 1-2; conidiis secundaris obovatis v. subclavatis, hyalinis, 4-8 × 1-2, catenulatis.

Hab. in ligno Pini Strobi brunneo-maculato in Amer. bor.

— Ob colorem lætum et conidia catenulata ad Coremium potius referenda species videtur.

3. Coremium arbuscula H. Fischer, Ber. deutsch. bot. Gesellsch. Bd. 8780 XXVII (1909) p. 502 cum icon; Centralbl. f. Bakter. etc. II Abt. Bd. 26 (1910) p. 57. — Cæspitulis, albis, gossypinis, dein rubentibus, 2-3 cm. lat., 1 cm. alt.; conidiophoris modo ex unica cellula brevi, apice sterigma unum v. plura gerente, modo longiore, verticillos 1-2 apice 2-12-sterigmaticos gerente formatis; sterigmatibus phialiformibus, apice acutis; conidiis breviter catenulatis, ovoideis, hyalinis, coacervatis e roseo fuscidulis, 4-6 × 2,5-3; synnematibus simplicibus, clavatis, v. ramosis arbusculiformibus, solitariis v. aggregatis, usque ad 2 cm. alt., demum rubellis v. rubro-brunneis.

Hab. ex solo vario pr. Berolinum extracto et cum gelatina culto in laboratoriis. Facile mediis variis colitur.

4. Coremium album (Cost.) Sacc. et Trav., Syll. XIX p. 428, Synpe-8731 nicillium album Costant. Bull. Soc. Mycol. Fr. IV (1888) p. 67, tab. 14, fig. 10-17. — Cæspitulis albis; conidiophoris primo simplicibus cylindraceis, septatis, copiose vacuolatis, sursum iterato et verticillato-ramosis, pseudosterigmatibus fusoideis; conidiis catenulatis, ellipsoideis, e 6 ≈ 3 usque ad 13 ≈ 7; conidiophoris demum plurimis parallele fasciculatis.

Hab. (cultum) in gelatina, in Gallia. — Descriptio imperfecta.

5. Coremium cinereum Rivolta, Parass. veget. p. 500, tab. 8, fig. 250 8782 (1873) (an Sporocybe).

 $\it Hab.$  in feno putri v. fermentescente in Italia. — Species dubia.

- 6. Coremium flavum Rivolta l. c. p. 500, tab. 8, fig. 251 b-c. (1873). 8733 Hab. in feno putrescente v. fermentescente in Italia. — Species dubia.
- 7. Coremium fuscum Rivolta l. c., p. 500, tab. 8, fig. 249 (1873). 8784

  Hab. in feeno putri v. fermentescente. An Sporocybe?
- 8. Coremium? fruticulosum Cumino, Fung. Vallis Pisii Spec., in 8785 Act. Ac. Taur. (1805) p. 260, tab. 3, fig. 3 (Mucor).

Hab. ad lignum putre in cellis vinariis in Pedemontio.

9. Coremium syphiliticum Hallierz, in Flora (1868) pag. 295, tab. 3, 8736 fig. 16.

Hab. in homine syphilitico in Germania. — Stirps omnino dubia

10. Coremium tuberculosum Gasparr. Relaz. malat. Vite, in Rend. 8787 Accad. Scienze (1852) p. 134, tab. 1-2 (?).

Hab. in Vite vinifera in Itat. merid. — Descriptionem

et icones l. c. reperire nequivi. An citatio ex opere quodam adhuc inedito?

ALPHITOMYCES Reissek, in Sitzungsb. K. Akad. Wiss. Wien XXI (1856) p. 326 (Etym. alphiton farina el phyton planta ob superficiem farinosam). — Synnemata fusoidea v. subclavata, compressa, pallida, ex hyphis subparallelis filiformibus contexta, carnosula, demum subcoriacea (majuscula), tota superficie conidigera. Conidia longe moniliformi-catenulata ex apice hypharum repetito furcatarum acrogena, globosa, minutissima, hyalina. — A gen. Isaria recedit conidiis longe concatenatis et loco; a Coremio synnemate tereti-fusoideo, apice acutato, ubique conidigero.

1. Alphitomyces Schrötteri Reissek l. c. cum tabula eximia. — Gre- 8788 garius, elatus, 2-4 cm. alt. 2-4 mm. medio crassus, subinde irregularis et fissus, albidus dein subalutaceus, tota superficie (e conidius) farinosus; hyphis longissimis, septulatis, 2,5-3 μ. cr. repetito arrecto-dichotomis; conidiis in catenas longissimas usque ad 150 μ. longas dispositis, sphæricis, 1,2-1,3 μ. diam., levibus, hyalinis.

Hab. in superficie case in æ aqua solutæ diu quiescentis in Austria (Prof. Schrötter).

GIBELLULA Cav. - Syll. XI p. 643, XVIII p. 644.

1. Gibellula capillaris Morgan, Journ. of Myc. XI (1905) p. 50. — 8789 Synnematibus 5-8 mm. alt., 40-60 μ. cr., simplicibus, capillaribus, flexuosis, curvis, contortis, fulvis, summitate pallidis, basi brevi v. nulla, ubique conidiferis; hyphis longitudinaliter solide coalescentibus, tenuibus, fulvis, ramulos sporiferos brevissimos exerentibus; conidiophoris crassis, obtusis, pallucidis, apice catenulam unicam v. paucas conidiorum gerentibus; conidiis in quaque catenula plurimis, clavato-oblongis, levibus, hyalinis, 6-9 × 1-2.

Hab in insecto quodam minuto, emortuo, inter folia in silvis Preston Ohio Amer. bor.

Gibellula eximia v. Höhnel, Ergebn. Bot. Exp. Südbras. (1901) 8740
 Denk. k. Ak. d. Wiss. Wien Bd. LXXXIII (1907) Extr. p. 37.
 — Synnematibus, gregariis, ochraceo-flavis, simplicibus v. semel dichotomice ramosis, 3,5-4 cm. altis, 0,5-1 mm. cr., flexuosis, ex hyphis 2 μ. cr., sæpe asperulis, tenuibus, parallelis formatis, sursum racemosis v. dichotomico-racemosis, ramis conidiophora copiosa brevia, simplicia patentia apice capitata gerentibus; capitu-

lis subglobosis 20-25  $\mu$ . diam., ex cellulis minutis ubique pseudobasidiis radiatim divergentibus ovato-piriformibus 3-4  $\mu$ . longis dense obtectis; conidiis allantoideis, minutissimis, curvulis 3-3,5  $\approx$  1.

Hab. in chrysalide Papilionis cujusdam, dejecta, Sao Paulo Brasiliæ (V. Schiffner). — Probabiliter statum conidicum Corducipitis cujusdam refert.

### Sect. 2. Didymosporæ.

DIDYMOSTILBE P. Henn. - Syll. XVIII p. 645.

1. Didymostilbe coccinea (Massee) Sacc. Hartiella coccinea Massee 8741 Kew. Gard. Bullet. (1910) p. 5. — Synnemate verticali, tereticlavato, v. rarissime ramoso, coccineo, 1 mm. alt., rigido, ex hyphis coalitis conflato; conidiis in hypharum apicibus solitariis, ellipsoideis, 1-septatis, levibus, coccineis, 7-9 × 4-5.

Hab. in pericarpio Theobromæ Cacao, Trinidad Indiæ occ.
(J. H. Harr). — Genus Hartiella Massee nulla nota a Didymo-

stilbe differre videtur.

#### Ser. 2. PHÆOSTILBEÆ Sacc.

# Sect. 1. Hyalosporæ.

GRAPHIUM Corda — Syll. IV p. 609, X p. 693, XI p. 644, XIV p. 1110, XVI p. 1087, XVIII p. 648.

Graphium Geranii Vogl., Ann. Ac. Agric. Torino (1904) pag. 79, 8742 cum icon., Ann. Myc. III (1905) p. 170; Atti R. Acc. Sc. Torino v. XLIII (1907-1908) p. 97 (251). — Maculis fulvis, fuligineis, rotundis seu subellipticis, 1-4-5 mm. latis, etiam confluentibus; conidiophoris hypophyllis, dilute fuligineis, filiformibus, septatis, 5-6 μ. cr., in synnema primum sursum leniter attenuatum, solitarium, 250-230 μ. longum coalitis; conidiis cylindraceis v. ovoideo-oblongis, hyalinis, e denticulis divergentibus oriundis, 16-24 × 5-7.

Hab. in foliis vivis Geranii mollis in Pedemontio Italiæ bor. — Graphio gracili Peck proximum.

2. Graphium rhodophæum Sacc. et Trott. — Syll. XVI, p. 1087 — 8748 var. elatius Sacc. in Ann. Mycol. IX (1911) p. 256. — A typo dignoscitur stipite pariter nigro, glabro, rigidulo sed usque ad 5-6

mm. alto; capitulo 0.5 mm. diam. dilute roseo, glabro, nitidulo; conidiis typi, nempe  $5.5-6 \times 2.7-3$ , roseolo-hyalinis, obsolete guttulatis.

Hab. in ramulis emortuis in calidariis Horti Patavini, Ital. bor.

- Verisimiliter species exotica importata cum plantis cultis.

3. Graphium anomalum Massee, Kew Bull. (1908) p. 218. — Synne-8744 mate verticali flavido, siccitate rigido, 1,5-2 mm. alto, e fibris conglutinatis composito; hyphis sursum relaxatis, pallidioribus, conidiferis; conidiis continuis, ellipsoideis, hyalinis, 5 × 1,5, ex conidiophoris lateralibus orientibus.

Hab. in caule emortuo herbaceo, Aburi, Africa occid. (Johnson). — Ob conidia in conidiophoris lateralibus nascentia, a typo generis, teste auctore, deflectit.

4. Graphium fissum Preuss. — Syll. IV, pag. 610 — subsp. \*G. cla-8745 vulatum Sacc., in Ann. Mycol. X (1912) p. 321. — Synnematibus dense v. laxe gregariis, tereti-clavulatis, obtusis, minutis, nigrescentibus, sursum pallidioribus 400 × 70-90; hyphis filiformibus, septatis, brunnois, sursum pallidioribus et obtuse leviterque denticulatis, parum divergentibus; conidiis fusoideis, rectis v. inæquilateris. 8-9 × 2. hyalinis.

Hab. ad caules putres in Horto Musei agrarii, Romæ Italiæ (D. Saccardo). — Verisimiliter species distincta.

5. Graphium perpusillum Sacc., Ann. Mycol. VI (1908) p. 567 (ex 8746 err. Gr. pusillum, non Wallr.) tab. XXIV, fig. 13. — Sparsum, perexiguum, fuscum, sursum (ex conidiis) candicans; synnematibus breve cylindraceis, 50 × 14 ex hyphis fasciculatis fuligineis filiformibus, apice relaxatis dilutioribus et capitulum minutum formantibus; conidiis oblongis utrinque præcipue basi obtusatis, 7 × 2.5, subhyalinis, 1-guttulatis, initio saltem breve catenulatis.

Hab. in lignis putrescentibus dejectis in silvis Ridgeways, Orleans County N. Y., Amer. bor. (FAIRMAN). — Minutie et notis datis facile dignoscitur. Socium adest Brachysporium apicale B. et Br.

6. Graphium ramosum Preuss, in Kl. Herb. viv. Mycol. n. 1263, Bot. 8747 Zeit. (1849) p. 294. — Acervulis minutissimis punctiformibus, nigris epi- et entoxylinis, stipite lignum penetrante erecto apice pallido albido, simplici v. sæpius ramoso, ramulis aut floccosis aut penicillatim divisis capitulum ovatum formantibus; conidiis ovoideis albis.

Hab. ad ligna putrescentia in agro Hoyerswerda.

7. Graphium Ailanti (Ranojev. et Bub.) Sacc., Dendrostilbella Ailanthi 8748 Ranojevic et Bubák, Ann. Mycol. VIII (1910) p. 401. - Synnematibus crebre distributis, cylindraceis, nigris, ex hyphis nigrofuligineis, parce septatis, parallelis constitutis, 171-304 × 19-32; capitulis subglobosis v. reniformibus, griseo-cinereis, usque ad 218 u. cr.; conidiis limoniformibus, ovoideis, ellipsoideis, 5 5-10 × 3,5-6, hyalinis.

Hab. in superficie interna corticis trunci dejecti Ailanti glandulosæ prope Belgrad Serbia. — Habitus myxomycetoideus

Dictydii ex. g.

8. Graphium atro-virens Hedgcock, 17th Ann. Rep. Miss. bot. Gar- 8749 den St. Louis (1906) p. 94, tab. 8, fig. 1-3. - Mycelio hyphis in fasciculos parallele coherentibus ramosis confluentibus, hyalinis, dein olivaceis, 3-4 µ. cr.; synnemate ex atro-viridi nigricante, raro pallidiore; stipite 1,5-3 mm. alto, 8-80 u. cr.; forma simplici: conidiis secundariis acropleurogenis, ex obovato ellipsoideis. 4-5,5 × 1,6-2, hyalinis, serius guttulatis; forma capituligera: capitulis muco obvolutis, ex albo griseis, 40-600 u. diam.; conidiis primariis obovato-ellipsoideis, 3,5-4,5 × 1,4-2, hyalinis.

Hab. in ligno pineo atro-maculato putrescente in Amer. bor. 9. Graphium ambrosiigerum Hedgcock, 17th Ann. Rep. Miss. bot. 8750 Gard. St. Louis (1906) p. 85, tab. 8, fig. 4-7. — Mycelio albo dein brunneo-nigricante; synnematibus ex hyphis parallele fasciculatis 2 μ. cr. formatis, 500-900 μ. long.; capitulis ex albo brunneis, muco obvolutis, 200 μ. diam.; conidiis primariis ovoideis, 5 × 3, secundariis 3,7 × 1,3, non catenulatis.

Hab. in ligno pineo atro-maculato in Amer. bor.

10. Graphium Bambusæ (v. Höhn.) Sacc., Phæoisaria Bambusæ von 8751 Höhn. Stzsb. k. Ak. d. Wiss. Wien, CXVIII, Abt. I (1909) p. 330. — Synnematibus atris, dense gregariis, hinc inde subcæspitosis, 1-1,5 mm. altis, 40-50 µ. cr., subulatis, basi disciformi-dilatatis hyphisque violaceo-brunneis cinctis, apice acutis v. obtusis, ex hyphis numerosis, parallelis, 2-3 µ. cr. constitutis, sursum conidiophora subhyalina, 10-20 \* 2-2,5, minute denticulata exerentibus; conidiis hyalinis ex oblongo cylindraceis, obtusulis, continuis, 6-10 × 1,5-2.

Hab. in caudicibus emortuis Bambusæ e subgen. Gigantochloæ in Horto botanico Buitenzorg ins. Java. - Teste v. Höhn. l. c. Neopeckia Bambusæ v. Höhn. est status ascophorus. Genus Phæoisaria v. Höhn. a Graphio tantum differt synnematibus sursum acutis nec clavatis.

11. Graphium melanotes (Syd.) Sacc., Stilbella melanotes Syd., Hedw. 8752 XLIX (1909) pag. 84. — Synnematibus solitariis vel paucis basi coalitis, ex hyphis fuscidulis ca. 2-3 μ. crassis compositis, totis atris; stipite cylindrico, glabro, usque ad 1 mm. longo, 200-400 μ. crasso; capitulo subgloboso vel irregulari, 400-700 μ. crasso; conidiis minutissimis, hyalinis, 2-2½ > 0,8-1.

Hab. in cortice Bactridis majoris, Para, Amer. austr. (C. F. BAKER).

12. Graphium hippotrichoides (Lind.) Sacc., Clavularia hippotrichoides 8752\* Lindau, in Rabenh. Krypt. Fl. Pilze IX, p. 313, cum icon. f. 3 (1908). — Synnematibus longissimis, rhizomorphoideis, nigris, filiformibus, deorsum sæpe pluribus confluentibus, sursum supra altitudinem 2-3 mm. pallidioribus brunneolo-albis, ex hyphis septatis, 3 μ. cr. cohærentibus formatis; capitulis clavulatis v. globosis, ½-3/4 mm. diam., brunneo-flavidis; conidiophoris simplicibus continuis, acutatis, hyalinis, 19-24 × 3.5 dense radiatim stipatis; conidiis copiosissimis, oblongo-cylindraceis, utrinque rotundatis, rectis v. raro curvulis, hyalinis, 7,7-9,6 × 1,5-2.

Hab. ad terram, verisimiliter ad radices emortuas pr. Oldesloë, Schleswig (JAAP). — Ob synnemata nigra hippotrichoidea potius ad Graphium quam ad Clavulariam spectat.

13. Graphium cicadicola Speg., Myc. Arg. V, p. 446, cum icon., in 8758 An. Mus. Nac. Buenos Aires XX (1910). — Stipitibus solitariis v. pauci-cæspitosis, 1-2 mm. long., deorsum teretibus gracilibus 25-40 μ. cr., obscure cinereis, sursum elliptico- vel fusoideo-capitatis, 150-300 μ. long., 50-80 μ. cr., pulverulentis, albescentibus, ex hyphis tenuibus 15 μ. cr. hyalinis septulatis apice subincrassatulis abrupteque in conidiophora, breviuscula gracillima monosperma productis conflatis; conidiis ellipsoideis utrinque rotundatis 1,5-2 × 1, eguttulatis, levibus, hyalinis.

Hab. in corpore putrescente Tympanoterpis sibilantis humo infosso, Parque Roca Tucumán Argentina Amer. austr.

Graphium albo-nigrescens Lindau, in Rabenh. Krypt. Fl. Pilze 8754
 IX, pag. 362 (1908). — Ita vocandum Graphium leucocephalum (Berk. et Curt. 1874) Sacc., Syll. IV p. 611, nec Gr. leucocephalum (Wallr. 1833), Syll. IV, p. 165.

STILBOCHALARA Ferdinands. et Winge, Botanisk Tidsskrift XXX (1910) p. 220 (Etym. Stilbum et Chalara inter quæ genera medium).

- Genus phæostilbeum, conidia endogena *Chalaræ* modo generans. Est *Chalara* stilbiformis.
- 1. Stilbochalara dimorpha Ferdinands. et Winge, l. c. p. 220, fig. 7. 8755 - Synnematibus 2-2,5 mm. alt., ad basim cylindraceis, altero cum altero coalitis, nigro-fuscis, sursum liberis, penicillatis, e conidiis albo-pulverulentis; hyphis singulis pro ratione tenuissimis, flexibilibus, sæpius ramosis, fuscis, crebre septatis, 4-5 u. ut plurimum crassis, superne Chalaræ modo apertis, tubuliformibus, paulo infra tubulum apertum crassitudinem maximam, usque ad 9 µ. attingentibus: conidiis endogenis, seriatim e tubulis protrusis, dimorphis, aliis numerosissimis hyalinis (catervatim brunneolo-tinctis), cylindricis, utrinque truncatis, membrana tenui, intus vacuolatis, 10-12 × 4-5, aliis paucioribus fuscis, ut plurimum ellipsoideo-cylindricis, membrana crassiore, 1-2 vacuolatis, 10-13 = 5,5-6.5, paucis infra ultrave; conidiis fuscis in cellulis propriis versus basim synnematis præcipue formatis, paucis autem, charactere sæpe intermedio, in iisdem tubulis, in quibus conidia hyalina gignuntur, inventis, semperque, quod si evenit, infra hyalina observatis.

Hab. ad fructus semiputridos Theobromæ Cacao, Las Trincheras Venezuelæ (H. LASSEN). — Socia adest Sterigmatocystis dipus Ferd. et Wing.

- STROMATOGRAPHIUM v. Höhnel, Ergebn. Bot. Exp. Südbras. 1901, Denk. k. Ak. d. Wiss. Wien, Bd. LXXXIII (1907) Extr. p. 37 (Etym. stroma et Graphium). Synnemata et conidia Graphii sed complurima e communi stromate crasso, molli-carbonaceo nascentia.
- 1. Stromatographium stromaticum (Berk.) v. Höhnel l. c., Stilbum 8756 stromaticum Berk. Journ. of Bot. (1843) p. 642 Syll. IV p. 575 (nomen). Stromate sordide nigro applanato, 500-600 μ. crasso, 1-1,5 cm lato, ambitu subrotundo v. oblongo lobato, e cellulis oblongo-polygoniis 15-25 × 10 hyalino-violaceis conflato; synnemati bus nigris, numerosis, 3-5 mm. longis, superne 140 μ., inferne 200 μ. cr., ex hyphis 2-3 μ. cr. parallelis, atro-brunneis constantibus et extus corticatis; capitulo flavido, 500 μ. diam., ex conidiophoris curvatis, ramosis, 100 × 1 et conidiis copiosis, oblongis, 1,5-2,5 × 1, mucoso-conglutinatis, hyalinis constante.

Hab. in caudicibus putridis Sao Paulo Brasiliæ, Minas Geraes, Adams-Peak Ceylon. — Prof. v. Höhnel l. c. lapsui meo tribuit

loci citationem (Syll. l. c.) ad Adam's Peak, sed revera lapsus est Höhnelio. Cfr. Berk. et Br. Fung. of Ceyl. n. 866!

HARPOGRAPHIUM Sacc. - Syll. IV p. 619, X p. 695, XVIII p. 650.

1. Harpographium Yerbæ Speg., Anal. Mus. Nac. Buenos A. t. XVIII 8757 (1908) p. 141. — Cæspitulis sæpius linearibus 1-5 mm. long., 1-1,5 mm. lat., primo erumpentibus dein, cortice secedente, nudis, fusco-atris; synnematibus numerosis confertis e nodulo stromatico communi assurgentibus, 250-1500 × 30-60, ex hyphis tenuibus 2-3,5 μ. cr., deorsum olivaceis coalescentibus sursum hyalinis relaxatis denticulatis septulatis efformatis; conidiis clavulatis 10-20 × 2,5, sæpius leniter curvulis, continuis, hyalinis eguttulatis.

Hab. ad ramos dejectos putrescentes Ilicis paraguariensis in silvis circa San Pedro Misiones Reip. Argentina.

2. Harpographium fasciculatum Sacc. — Syll. IV, p. 619 — var. hir- 8758 sutum Ferraris, Ann. Mycol. VII (1909) p. 281. — Synnematibus cæspitulosis, atris, rectis v. adscendentibus 3-4 mm. circ. altis, apice subclavulatis, hyphis olivaceis flexuosis, simplicibus v. ramosis, septato-nodulosis, 5 μ. cr. undique vestitis; hypharum ramulis extremis pallidioribus, subhyalinis, verruculosis, subclavulatis, apice conidigeris; conidiis hyalinis, subfusiformibus, utrinque acutis, 15 × 2.

Hab. in ramulis Mori albæ a Diaspide pentagona affectis pr. Serravalle d'Asti Pedemont. Italiæ collectis et in vaso vitreo diu servatis.

STYSANUS Corda — Syll. IV p. 620, X p. 696, XI p. 644, XIV p. 1112, XVI p. 1088, XVIII p. 650.

Stysanus Yerbæ Speg., Anal. Mus. Nac. Buenos Aires t. XVII 8759 (1908) p. 140. — Stipitibus laxe gregariis erectis rigidulis 500-2500 μ. alt., tenuibus, atris, e basi subbulbosula 50-60 μ. diam. sensim attenuatis, 40-25 μ. fibrosis, hyphis indistinctis, apice lanceolato-subcapitatis, pallescentibus purpurellis 40-60 μ. diam.; conidiis subcatenulatis, ellipsoideo-obovatis, 5-8 × 2-3, hyalinis, non v. minute 2-guttulatis.

Hab. in disco ramorum excesorum Ilicis paraguariensis in dumetis circa Campo das Cuias Misiones Reip. Argentina.

2. Stysanus graphioides Schulz. v. Mügg., Verh. zool.-bot. Ges. Wien 8760 (1865) p. 795, tab. 16, fig. 3. — Ab affini Stys. Stemonite distinguitur statura multo minore, stipite synnematis proportione capi-

tuli breviore, conidiisque cuneato-obovatis, prope apicem crasse 1-guttatis, initio hyalinis, dein griseo-nigricantibus.

Hab. in sectione tuberum Solani tuberosi in cellis in Hungaria.

STILBOTHAMNIUM P. Henn. — Syll. XIV p. 1110, XVI p. 1086, XVIII p. 636.

1. Stilbothamnium Penicillopsis P. Henn. — Syll. XVI, p. 1086. — 8761 Status ascophorus: Aspergillus Penicillopsis (P. Henn. et Nym.) Raciborski, Bull. Ac. Sc. Cracovie (1909) p. 372. — Sclerotiis diu sterilibus demum in conceptacula ascophora mutatis; conceptaculis pariete crasso griseo-cyaneo præditis, 0,6 mm. diam., intus nucleo globuloso albo, molliore fætis; ascis in centro nuclei ex hyphis hyalinis, septatis, 2-3 μ. cr. generatis, sphæricis v. breviter ovoideis, tenui-tunicatis, 21-24 μ. diam., octosporis; sporidiis e fronte orbicularibus e latere ellipticis, sulco æquatoriali præditis, tenuiter verruculosis, maturis diam. 11-13 μ. et latere 6-7,5 μ., episporio brunneo-viridulo.

Hab. in umbrosis sub arboribus, Buitenzorg, Java.

TRICHURUS Clem. et Shear - Syll. XVI p. 1089.

1. Trichurus gorgonifer Bainier, Bull. Soc. Myc. Fr. XXIII (1907) 8762 p. 230, tab. 25. — Ex albo cinerescens; synnematibus elongatis, cylindricis, nigricantibus, sursum ramis conidiophoris capitulum formantibus extus divaricatis præditis, ramis septatis hinc inde in ramulos verticillato-ramosos penicillioideos divisis, apiceque in hypham longam sinuosam septatam, 200 × 2,5, sterilem desinentibus et capitulum pilosum reddentibus; conidiis catenulatis, ellipsoideis, 2,8-5,6 μ. diam., sæpius vero ovoideis 5,8 × 2,8, coacervatis cinerescentibus v. brunneolis.

Hab. in fimo vaccino in Gallia. — Teste auctore Trich. gorgonifer dignoscitur pilis simplicibus undulatis, conidiis cinereis, ovoideis, 5 \* 2.8; Trich. spiralis pilis spiralibus, conidiis flavobrunneis, 5-6 \* 2-3; Trich. cylindricus pilis simplicibus et iteratofurcatis, conidiisque oblongis 8-9 \* 3, glaucis.

# ANTROMYCES Fres. - Syll. IV p. 626, X p. 698.

Antromyces Copridis Fresen. — Syll. IV, p. 626 — fm. italicus 8763
 Ferraris, Ann. Mycol. VII (1909) p. 282. — Synnematibus sparsis, rigidis, setuliformibus, lucidis, usque ad 10 mm. altis, 50-60

 $\mu$ . cr.; capitulo 125-150  $\mu$ . diam., strato conidiorum 100-200  $\mu$ . cr. obtecto; conidiis catenulatis, utrinque truncatis, 7-9  $\approx$  2-3, continuis, hyalinis (immaturis?).

Hab. in terra humosa in castanetis, Costa prope Vittorio Treviso Ital. bor.

2. Antromyces subtropicalis Speg., Myc. Arg. V, p. 449, in Anal. 8764 Mus. Nac. Buenos Aires XX (1910). — Stipitibus sparsis v. laxe gregariis 5-10 mm. long., 300-350  $\mu$ . cr., erectis, insititiis, apice abruptiuscule incrassato-capitatis albescentibusque; hyphis stipitum cylindraceis olivaceis septulatis, 4  $\mu$ . cr. non articulatis arcte coalescentibus in capitulo subsolutis, ramulosis, articulatis 6-16  $\approx$  5-6, hyalinis, sensim in conidia transeuntibus; conidiis catenulatis subnavicularibus utrinque acutiusculis, 5-6  $\approx$  2,5, continuis, hyalinis, eguttulatis.

Hab. ad caules dejectos putrescentes Aristolochiæ Esperanzæ in silva primæva Bobadal Jujuy Argentina Amer. austr. Antr. Copridis Fres., secundum specimina italica ab Auctore lecta, conidiis omnibus et semper continuis et unicellularibus (nec præcl. Boudier monente 1-septatis) præditus est

# Sect. 2. Phæosporæ.

**SPOROCYBE** Fr. — Syll. IV p. 604, X p. 692, XI p. 643, XIV p. 1109, XVIII p. 653.

Sporocybe philippinensis P. Henn., Hedw. XLVII (1908) p. 265. 8765
 — Cæspitulis dense gregariis, villosis, atro-fuscis, effusis; stipitibus erectis rigidis, atris, 200-250 μ. longis, fusco-tomentosis, apice capitellatis; capitulis subglobosis v. ovoideis, atris, 200-220 μ. d., conidiis ellipsoideis v. ovoideis, fuscis, 8-13 × 5-6.

Hab. ad lignum N. Samar, Cajaogan ins. Philippin. (MERRILL).

SACCARDÆA Cavara — Syll. XI p. 643.

1. Saccardæa argentinensis Speg., Myc. Arg. V, p. 450, cum icon., 8766 in An. Mus. Nac. Buenos Aires XX (1910). — Plagulis plus minusve late ambientibus; stipitibus nigris densiuscule gregariis, erectiusculis, 2-3 mm. long., 30-50 μ. diam., apice abrupte setulosocapitatis ibique 100-250 μ. diam., ex hyphis tenuibus 1,5-2 μ. cr. septulatis obscure fuligineis arcte coalescentibus efformatis; setulis capituli patulis, flexuosis, 200 × 2-4, infra septulatis; conidiophoris

ad basim septulorum enascentibus, denticulatis,  $5-10 \approx 3-4$ ; conidiis non catenulatis, ellipsoideis, utrinque rotundatis,  $4-5 \approx 2-3$ , eguttulatis, fumosis.

Hab. ad radices putrescentes in cella humida laboratorii diu

servatas Buenos Aires Argentina.

- STYSANOPSIS Ferraris, Ann. Mycol. VII (1909) p. 281 (Etym. Stysanus et opsis aspectus). A gen. Stysano differt conidiis fuscis, catenulatis. Huc pertinent secundum Ferraris: Stysanus medius Sacc., S. globosus Pegl., S. atro-nitens Sacc.
- ENDOCALYX B. et Br. Syll. VII, p. 466 em. Petch, Ann. of Bot. XXII (1908) pag. 399 (Etym. endon intus et calyx). Synnemata stipitata v. sessilia, basi innata, ex hyphis parallelis verticalibus composita; hyphæ internæ supra disjunctæ, conidiferæ; hyphæ externæ in membranam fragilem, cylindricam v. infundibuliformem conglutinatæ; conidiophora simplicia, libera. densissime conferta, deorsum coalescentia; conidia pleurogena, alterna, stipitellata, continua, fusca, compressa. Quoad synonyma cfr. Petch l. c.
- Endocalyx melanoxanthus (B. et Br.) Petch, l. c., Melanconium 8767 melanoxanthum B. et Br. Syll. III, pag. 758. Conidia ex angulato subglobosa, primo flava, dein nigra, compressa, levia, 14-19 × 12-14, e latere 6-7 μ. cr. In frondibus Cocoës et Oncospermatis, Ceylon.
- 2. Endocalyx Thwaitesii B. et Br. Syll. VII, p. 467 Petch, 8768 l. c. pag. 400 Conidia ovoidea v. globosa, minime compressa, atro-fusca verruculosa v. echinulata, 17-21 ≥ 16-19. In frondibus Oncospermatis, Ceylon.
- 3. Endocalyx cinctus Petch, Ann. of Bot. XXII (1908) pag. 394 et 8769 399. Synnematibus, 1,5 mm. alt. erectis, cylindraceis, supra infundibuliformibus, flavis, ex hyphis parallelis, 1,5-2 μ. cr. conglutinatis formatis, deorsum vagina nigra cylindrica ad 0,6 mm. alta, 0,1 mm. diam. ex hyphis parallelis composita cinctis; hyphis externis supra in membranam fragilem, flavam, striatam dentibus quadratis recurvis fissam conglutinatis; hyphis internis deorsum in stipitem conglutinatis, supra liberis, confertis, conidiferis; conidiis globosis v. ovoideis, compressis, primo flavis et minute verrucosis dein nigris, 11-12 ≈ 9-12.

Hab. in frondibus Oncospermatis fasciculati (ex Palmis) emortuis Peradeniya, Ceylon.

# Sect. 3. Phragmosporæ.

**ARTHROBOTRYUM** Ces. — Syll. IV p. 628, XVI p. 1089, XVIII p. 655.

1. Arthrobotryum caudatum Syd., in De Wildem. Fl. Bas- et Moy.- 8770 Congo t. III, fasc. I (1909) Extr. p. 22. — Synnematibus epiphyllis, in mycelio Meliolæ (ut videtur) parasitantibus, solitariis v. pluribus basi fasciculatis, totis flavo-brunneis, 400-800 μ. long., 20-35 μ. latis, basi paulo crassioribus, teretibus, ex hyphis dilute brunneis 2-3 μ. crassis dense contextis, apice divergentibus et capitulum 70-120 μ. longum, 35-70 μ. crassum formantibus compositis; conidiis solitariis, fusoideis, 3-septatis, cellula inferiori in stipitem longum (15-20 μ) attenuata, diu hyalinis, tandem dilute olivaceo-brunneis, 25-40 (cum stipite) longis, 6-8 μ. latis.

Hab. in foliis Randiæ sp. verisimiliter parasitica in mycelio Meliolæ (M. amphitrichæ?) Kimpako et Boko Sainte-Barbe Congo Africæ (VANDERYST).

2. Arthrobotryum Rickii H. et P. Syd., Ann. Mycol. IV (1906) p. 345. 8771 — Synnematibus sparsis v. basi paucis fasciculatis, erectis, atris, filiformibus, rigidis, usque ad 1 mm. long., 50-70 μ. cr., basi subbulbosis, apice clavato-incrassatis, parte claviformi circ. 70-200 μ. longa, ex hyphis circ. 2-3 μ. cr. dense cohærentibus compositis; conidiis subcylindraceis, elongatis, utrinque rotundatis, 6-18-septatis, non constrictis, quaque cellula plerumque 1-guttata, fuscis, 35-80 × 5-6.

Hab. in culmis Arundinariæ, Sao Leopoldo, Rio Grande do Sul Brasiliæ (J. RICK).

cl. prof. G. Lindau). — Synnemata stipitato-capitata ex hyphis compactis composita, rigida, erecta, fusca; stipitibus parenchymaticis, tenacibus, sursum in capitulum globosum conidiferum productis. Conidia in hyphis fasciculatis, subbrevibus, fuligineis, filiformibus, in capitulo peripherice inserta, acrogena, solitaria (haud concatenata), oblonga v. fusoideo-oblonga, fumigata, 1-3-septata, ad septanon constricta. — Genus vix diversum ab Arthrobotryo.

1. Lindauomyces javanicus Koord., Botan. Untersuch. (1907) p. 240, 8772 fig. 51. — Stipitibus 250-275 × 35 hypophyllis; conidiis levibus 7,5-13 × 4, rectis v. curvulis, utrinque acutis v. obtusis, plerumque 10-13 × 4.

Hab. in foliis emortuis Fici elasticæ cultæ pr. Pennunggalan prov. Kedu ins. Java (Koorders).

**PODOSPORIUM** Schw. — Syll. IV p. 627, X p. 699, XIV p. 1113, XVI p. 1089, XVIII p. 656.

1. Podosporium chlorophæum Speg., Myc. Arg. V. pag. 450, in An. 8773 Mus. Nac. Buenos Aires XX (1910). — Subiculo superficiali araneoso v. submembranaceo centro velutino v. hirsuto, 10-15 mm. diam.; stipitibus densiuscule gregariis erectis, penicillato-ramulosis, atro-fuligineis, 150-250 × 20-30, ex hyphis simplicibus septulatis vix flexuosis, 4-5 μ. cr., olivaceis pellucidis efformatis; conidiis acrogenis clavulatis, 20-30 × 5, quadrilocularibus, olivaceis, loculis apicalibus pallidioribus, levibus, eguttulatis.

Hab. ad folia languida Merostachydis argyronematis prope San Pedro Misiones Argentina Amer. austr.

PHÆOISARIOPSIS Ferraris, Ann. Mycol. VII (1909) p. 280 (Etym. phajos obscurus et Isaria) — Synnemata gracilia, olivacea vel brunnea ex hyphis plus minusve relaxatis efformata. Conidia in paniculam v. capitulum laxum digesta, ovoideo-oblonga v. cylindracea, pluriseptata, hyalina v. subhyalina. — Huic generi secund. FERRARIS adscribendæ sunt: Isariopsis griseola Sacc., I. Grayana Ell., I. mexicana Ell. et Ev., I pilosa Earle; sed verisimillime a gen. Lindauomyces Koord. non differt.

1. Phæoisariopsis Tweediana (Speg.) Sacc. et Trott., Isariopsis Twee-8774 diana Speg., Myc. Arg. V, p. 451, in An. Mus. Nac. Buenos Aires XX (1910). — Maculis obsoletis amphigenis angulosis olivascentibus; stipitibus hypophyllis erectis teretibus, 150-300 ≈ 20-40, laxiuscule gregariis cylindraceis vix apice fimbriatis, olivaceis, ex hyphis simplicibus septulatis apice non v. vix denticulatis, 4-6 μ. cr., subolivaceis efformatis; conidiis vermicularibus, 50-80 ≈ 4-5, 3-5-septatis, ad septa non constrictis, levibus, hyalinis.

Hab. ad folia viva Cissi Tweedianæ in dumetis prepe Tucumán Argentina Amer. austr. — Species notis nonnullis ad Cercosporinam vergens, cum Cercospora Riacheuli Speg. non comparanda.

# Sect. 4. Dictyosporæ.

HERMATOMYCES Speg., Myc. Arg. V, pag. 445, in An. Mus. Nac. Buenos Aires XX (1910) (Etym. Hermes (pileo bialato) et myces).

— Hyphæ steriles repentes ramulosæ olivaceæ septulatæ; hyphæ fertiles erectæ clathrato-muriformes subhyalinæ, apice bicornutæ, cornubus retroflexis arcteque adpressis nigris monospermis; conidia globosa clathrato-muriformia subopace fuliginea.

1. Hermatomyces tucumanensis Speg., l. c. p. 446, cum icon. — Hy-8775 phis sterilibus 3-4 μ. cr. dense intertextis, subiculum tenuissimum ægre perspicuum arcte matrici adnatum vix fuscescens efformantibus; conidiophoris e latere compressis clavatis v. subclavatis, 20-40 × 25, e latere 10-15 μ. cr., e cellulis superposite biseriatis efformatis; conidiis e latere compressis sublenticularibus 35-40 × 30, e latere 15-20 μ. cr., concentrice parenchymaticis, subopace olivaceis.

Hab. ad ramulos dejectos putrescentes Smilacis campestris et Celtidis cujusdam in Parque Roca Tucumán Argentina Amer. austr.

#### Dubiæ sedis.

PSEUDOGASTER v. Höhnel, Ergebn. Bot. Exp. Südbras. 1901 Denk. k. Ak. d. Wiss. Wien Bd. LXXXIII (1907) Extr. p. 38 (Etym. pseudes falsus et gaster pro gasteromycete). — Synnemata clavata ex hyphis laxe cohærentibus, deorsum parallele, sursum irregulariter reticulatim ramoso-connexis formata. Conidia subglobosa, continua, in hypharum ramulis pleurogena et tegumento peculiari obducta, tegumento verruculoso pallide brunneo ex hyphis intertextis conflato. — Genus quoad sedem ambiguum, Gasteromycetem minutum æmulans.

Pseudogaster singularis v. Höhnel l. c., Char. generis. — Liche-8776 nicola; synnematibus 0,5-1 mm. altis, stipite 200-300 μ. cr., albo præditis, sursum clavatis, griseis; hyphis indistincte septatis, 1,5-1,8 μ. cr.; conidiis subglobosis, 8-12 μ. diam. griseo-brunneis ob tegumentum firmulum, intertextum inæqualiter verrucoso-angulosis.

Hab. in thallo tenui albido Lichenis cujusdam ad cortices Sao Paulo Brasiliæ (Schiffner).

Syll. fung. XXII (VII-1913)

# Fam. 4. Tuberculariaceæ Ehrenb. em. Sacc.

Ser 3. TUBERCULARIEÆ MUCEDINEÆ Sacc.

#### Sect. 1. Hyalosporæ.

TUBERCULARIA Tode — Syll. IV p. 638, X p. 700, XI p. 645, XIV p. 1115. XVI p. 1090, XVIII p. 658.

Tubercularia longipes Peyl, Lotos VII (1857) p. 66, tab. II, fig. 8. 8777
 — Sporodochiis erumpentibus, longiuscule stipitatis, hemisphærico-capitatis, 2-4,2 mm. altis, albidis, basi rubellis, intus axe conico miniato præditis; stipite elongato basi dilatato v. æquali hypostromate parvi-celluloso; conidiis ellipsoideis, hyalinis, intus granulosis.

Hab. in ramis junioribus emortuis Aceris saccharini pr. Kacin Bohemiæ (Peve). — Species stipite elongato imprimis dignoscenda. — Diagnosim potius ex icone deprompta, nam descriptio auctoris valde obscura.

2. Tubercularia zythioides C. Mass, Osserv. fitol., in Madonna Ve-8778 rona II (1908) Extr. p. 11. — Sporodochiis epiphyllis, subovatis, melleis, gelatinoso-carnosis, minutis, 200 μ. circ. diam., in maculis exaridis et zona subvinosa ambitis laxe disseminatis; conidiophoris curvulis et subunilateraliter subdichotome ramosis, 40-60 × 1-1,5; conidiis pleurogenis, hyalinis, oblongis, 7-10 × 2.5, utrinque oblique acutis v. subnavicularibus.

Hab. in foliis languidis Rubi cæsii prope Tregnago Verona, Italia bor. — Sporodochii colore, forma magnitudineque conidiorum distincta. Status pycnidicus verisimiliter est Sclerotiopsis Rubi.

3. Tubercularia eryngiicola Speg., Myc. Arg. V, p. 456, in An. Mus. 8779 Nac. Buenos Aires XX (1910). — Maculis nullis; sporodochiis erumpenti-superficialibus, subpezizoideis, 1-5 mm. long., 1-2 mm. cr., pallide miniatis, glabris, carnosulis; conidiophoris cylindraceis 20-25 × 1-1,5 dense constipatis, simplicibus, hyalinis, monosporis; conidiis e cylindraceo subfusoideis 8-12 × 2,5-3 rectis v. vix subinæquilateralibus, eguttulatis v. 2-4-guttulatis, hyalinis.

Hab. ad folia et caules aridos putrescentesque Eryngii pandanifolii in uliginosis prope La Plata Argentina Amer. austr.

4. Tubercularia fusispora Corda, Icones I, p. L, tab. 1, fig. 67 (1837). 8780

— Subsphærica, alba, mollis; stromate grumuloso, luteolo; conidiis fusiformibus, acutis, albis, diaphanis, 5 μ. circ. long.

Hab in ligno Sambuci putrido, in Bohemia.

5. Tubercularia olivacea Schum. in herb. — Cfr. Rost. in Overs. Kgl. 8781 Danske Vidensk. Selbsk. Forhandl. (1884) p. 149, Lindau Deut. Krypt. Fl. Pilze IX p. 441. — Tuberc. sulcata Schum. in Fl. Dan. t. 2338, non Tode (= Ditiola sulcata). Sporodochiis hemisphæricis subdepressis rugulosis, non sulcatis, subolivaceis seu cinereofuscis stipite cylindraceo, crasso; conidiis bacillaribus minutissimis, 3-4 μ. longis.

Hab. in ligno dejecto putrido in Dania (Schumacher). — Tubercularia olivacea Bres. in Strasser Verhandl. k. k. zool. bot. Ges. Wien LX (1910) p. 328 (nomen nudum). In ramis Sonntagberg Austriæ. An sit eadem ac Schumacheri dubium est. Putatur forsan esse formam vetustam Tuberc. confluentis.

#### ENDOCONIDIUM Prill. et Del. — Syll. X p. 708, XI p. 646.

1. Endoconidium tembladeræ Heraclio Rivas et Ces. Zanolli, La tembladera, in Revista de la Facultad de Agronomia y Veterinaria de la Plata, tom. V. (1909) p. 183, fig. 4-10. — Mycelio imprimis inter cellulas aleuronicas seminis evoluto, filiformi, flexuoso, ramoso, vacuolato, 2-3,5 μ. cr., in segmenta 11-35 μ. longa partito, dein in glomerulos dense intricato-compacto, ramulis periphericis innumeris, divergentibus, tenuioribus (conidiophoris); conidiis sphæroideis 1-2,5 μ. diam., v. ovoideis 5-5,5 μ. long., in apice conidiophoris veluti intra vaginulam singulatim et successive formatis secedentibusque, hyalinis.

Hab. in caryopsidibus, ubi magis evolvitur, nec non in floribus, foliis, culmoque Festucæ Hieronymi Hackel in regione Andina reipublicæ Argentinæ. — Animalia equina, bovina, ovina et caprina, quæ hoc gramine vescuntur sæpissime morbo gravissimo tembladera dicto afficiuntur. Professores platenses, Rivas et Zanolli, ductu ill. Spegazzinii, tandem causam myceticam morbi ingeniose detegerunt. — Ob vitam tantum, ut videtur, endogenam species a typo Endoconidii recedit et propius accedit ad mycetem hucusque asporum, qui vim ebrietatis Lolio temulento communicat.

CHÆTOSPERMUM Sacc. — Syll. X p. 706.

1. Chætospermum Elasticæ Koord., Bot. Untersuch. Java (1907) p. 244, 8788

fig. 55. — Sporodochiis amphigenis, plerumque hypophyllis, innatis, erumpentibus, 0,3-0,7 mm. diam., pulvinatis, orbicularibus, albescentibus; hyphis fertilibus ramosis; conidiis acrogenis, solitariis, continuis, hyalinis, anguste cylindraceis,  $21-25 \approx 3,5-4$ , utrinque rotundatis et 2-6-setosis; setis rectis  $10-15~\mu$  longis, vix  $^1/_3~\mu$ . crassis, hyalinis, interdum inconspicuis.

Hab. in foliis emortuis putridis Fici elasticæ prope Purworedjo, Loano, Penunggalan prov. Kedu, Java (Koorders).

TUBERCULARIOPSIS v. Höhn. Fragm. z. Mycol. VI, in Stzb. k. Ak. d. Wiss. Wien CXVIII, Abt. I p. 42 1 (1909). (Etym. a *Tubercularia*, cui affinis). -- Sporodochia gelatinoso-cartilaginea, erumpentia, discoidea, crasse breviterque stipitata; contextu hyalino fibrosoplectenchymatico. Conidiophora parallela, sursum parce ramosa. Conidia continua hyalina, extus mucosa, in stratum firmum approximata, globulosa, v. fusoidea, acropleurogena.

1. Tuberculariopsis anomala v. Höhn. l. c. cum icon. — Sporodo- 8784 chiis 0,5-2 mm. lat. 0,5-1 mm. cr., ochraceo-flavis, subdiaphanis, vegetis cartilagineo-gelatinosis; contextu ex hyphis 2-3 μ. cr. dense radiatim fasciculatis, hyalinis, apice minute denticulato-sporigeris; conidiis sessilibus v. brevissime stipitatis, hyalinis, ovoideis, 9-12 × 8-10, subinde oblongatis v. citriformibus, intus granulosis, stratum 100-300 μ. crassum formantibus.

Hab. in ramis emortuis, Tjibodas Javæ.

**DENDRODOCHIUM** Bon. — Syll. IV p. 650, X p. 706, XI p. 646, XIV p. 1115, XVI p. 1092, XVIII p. 660.

1. Dendrodochium verticillioides Sacc. Ann. Mycol. VI (1908) p. 568. 8785 — Sporodochiis dense gregariis, minutissimis, hemisphæricis, superficialibus, 100-120 μ. diam, candidis, in areis intus et extus denigratis orientibus, laxiusculis, ob hyphas sæpe exertas pubescentibus; hyphis fertilibus bacillaribus, modo simplicibus, modo furcatis, modo iterato dichotomis, 40-60 ≈ 3, ramulis obclavatis; conidiis breviter fusoideis, curvulis, utrinque obtusulis, 7-8 ≈ 2,2-2,5, hyalinis.

Hab. in canlibus languidis v. emortuis Cerei sp. in montibus Apaseo, Guanajuato Mexici (Bonansea).

Dendrodochium æruginosum v. Höhn. Ann. Myc. III (1905) p. 339. 8786
 Sporodochiis superficialibus, hemisphæricis subinde depresse verruciformibus, ambitu irregulariter orbicularibus, sparsis, v. grega-

riis, sæpe confluentibus, vegetis vivide æruginosis, siccis atroviridibus vel nigricantibus, 100-800 μ. diam., mollibus, fere gelatinosis, ex hyphis 1-1,5 μ. cr., simplicibus v. ramoso-intricatis constantibus; hyphis sursum ramos alternos v. oppositos v. 3-4-verticillatos, plerumque curvulos, fusoideos v. clavulatos, apice acutos gerentibus; conidiis solitarie acrogenis.

Hab. in ramis putridis, dejectis Fagi, Wienerwald Austriæ (v. Höhnel).

3. Dendrodochium Traversi Giuditta Mariani in Atti Soc. it. Sc. Nat. 8787 L (1911) p. 171, fig. 5. — Sporodochiis sparsis vel hinc inde adproximatis, subsphæricis, depressis, sessilibus, <sup>1</sup>/<sub>5</sub>-<sup>1</sup>/<sub>4</sub> mm. diam., albis; hyphis fertilibus furcatis, typice dichotomis 1 <sup>1</sup>/<sub>2</sub>-2 μ. diam.; conidiis copiosis, ovoideis vel breviter subcylindraceis, 3-4 <sup>1</sup>/<sub>2</sub> ≈ 2, varie guttulatis, hyalinis.

Hub. in cladodiis emortuis Rusci Hypoglossi in Horto Botanico Conimbricensi Lusitaniæ (A. Moller).

4. Dendrodochium epistroma v. Höhn. Fragm. z. Myk. VI, in Stzb. 8788 k. Akad. Wiss. Wien, CXVIII, Abt. I (1909) pag. 424. Hymenula epistroma v. Höhn. in Syd. Mycolh. germ. n. 648. — Sporodochiis vegetis roseo-incarnatis, siccis fere miniatis, serius rubrobrunneis, depresse verruciformibus, 0,2-0,5 mm. diam., raro crassioribus vel confluentibus et tunc usque ad 5-6 mm. long. singulis vero linea brunnea distinctis; hyphis 2-4 μ. cr., ex hyalino flavidis, in fasciculos connexis, dendroideo-ramosis, radiatim divergentibus, apice in hymenium dilute roseum 40 μ. crassum abeuntibus; hymenii conidiophoris ex hyphis simplicibus, v. fasciculato-ramosis, 1-2 μ. cr., flexuosis formatis; conidiis in apicibus acrogenis, hyalinis, bacillaribus, rectis curvulisve, 3-5 × 1, mucoso-convexis.

Hab. in stromate Diatrypellæ favaceæ ad ramos betulinos, Tamsel Brandenburg (P. Vogel) et Triglitz JAAP).

TUBERCULINA Sacc. — Syll. IV p. 653, X p. 709, XI p. 646, XIV p. 1118, XVI p. 1092, XVIII p. 661.

Tuberculina prosopidicola Speg., Myc. Arg. V, p. 452, in An. 8789
 Mus. Nac. Buenos Aires XX (1910). — Acervulis primo discretis
 dein confluentibus linearibus carnosulis e rimulis erumpentibus
 fusco-purpurascentibus, setulis nonnullis, sparsis, simplicibus cylindraceis non v. 1-2-septatis apice obtusiusculis, 30-50 × 4-5, pallide olivaceis ornatis; conidiis sæpius subglobosis, 5-10 μ. diam.,

dichotomice catenulatis, levibus fumosis, muco deliquescente obvo-

lutis eguttulatis.

Hab. ad ramos, pedunculos nec non legumina Uredine prosopidicolæ Speg. infecta in montuosis Catamarca Argentina Amer. austr. — Species a genere setularum præsentia satis recedens.

2. Tuberculina apiculata Saccardo, Fungi aliquot africani, Bol. Soc. 8790 Broteriana, v. XXI (1904-905) p. 8. — Sporodochiis in tuberculis (gallis?) foliorum subsuperficialibus, pulvinatis, siccis nigrescentibus, 0,3-0,6 mm. diam., 160-170 μ. altis, compactis; conidiophoris indivisis, densissime verticaliter stipatis, cylindraceis, subcontinuis, 5-6 μ. cr.. fulvo-rufescentibus, hyphis inferioribus saturatioribus; conidiis in apice conidiophori solitariis, globosis, 10-12 μ. diam., basi sæpissime apiculo prominulo præditis, sordide roseis.

Hab. in foliis adhuc vivis Clerodendri Silviani, S. Thomé, alt. 100 m., Africa (A. Moller).

3. Tuberculina andina Speg., Myc. Arg. V, p. 452, in An. Mus. Nac. 8791 Buenos Aires XX (1910). — Sporodochiis hemisphæricis pseudoperidia æcidii tota obstruentibus 250-400 μ. diam., livido-glaucescentibus, carnosulis; conidiis subglobosis, 10 μ. diam., tenuiter tunicatis, levibus, hyalinis, eguttulatis.

Hab. in ecidio ad folia Euphorbiæ portulacoidis in summis montibus Puente del Inca prope Mendoza Argentina Amer. austr.

4. Tuberculina præandina Speg. Myc. Arg. V, p. 452, in An. Mus. 8792 Nac. Buenos Aires XX (1910). — Sporodochiis valde numerosis, fusco-purpureis, pseudoperidia æcidii implentibus, subconfluentibus carnosulis; conidiis globosis tenuissime tunicatis, 10 μ. diam., levibus, eguttulatis, vix fumosis, violascentibus.

Hab. in ecidio ad folia viva Senecionis mendozini, Potrerillos prope Mendoza Argent. Amer. austr.

5. Tuberculina microstigma Sacc. Ann. Mycol. VI (1908) pag. 563, 8793 tab. XXIV, fig. 12. — Sporodochiis perexiguis, superficialibus, hinc inde dense gregariis, albidis, granuliformibus, 60-80 μ. diam., epiphyllis; hyphis fertilibus e basi fasciculato-radiantibus, filiformibus, hyalinis, minute denticulatis, subtortuosis, 20-30 × 2,5, simplicibus v. sæpius e basi furcatis, continuis; conidiis sphæricis, levissimis, e subchlorino hyalinis, intus granulosis, 14 μ. diam., episporio 2 μ. cr.

Hab. in foliis vivis Achilleæ Millefolii, Dahlewitz pr. Zossen Germaniæ, Sept. 1906 (H. Sydow). — Sane peculiaris et a typo desciscens.

6. Tuberculina Davisiana Sacc. et Trav. in Saccardo, Not. Myc. IX, 8794 Ann. Myc. v. V (1907) p. 177. — Hypophylla, in *Rhytismatis salicini* parte aversa parasitica, isabellino-mellea; acervulis minutis, 80-160 μ. latis, pulvinulatis, dense confertis et sæpe confluentibus, compactiusculis; hypostromate irregulariter celluloso, subhyalino, 50-60 μ. crasso; conidiophori sex hypostromate, oriundis fasciculatis, paliformibus, 28-40 × 6-7, dilute flavo-melleis, continuis, raro 1-2-septatis, apice obtusis; conidiis globulosis v. cuboideo-globosis, levibus, 12-15 × 10-13, intus minute granulosis, hyalinolutescentibus, interdum, ut videtur, brevissime et labiliter catenulatis.

Hab. in foliis adhuc vivis Salicis cordatæ, parasitica in Rhytismate, Racine, Wisconsin U. S. A. (J. J. Davis). — Ut ceteræ generis species videtur parasitica nec cum Rhytismate metagenetica.

7. Tuberculina pallida Syd., in De Wildem., Flora Bas- et Moy. Congo 8795 t. III, fasc. I (1909) Extr. p. 10. — Sporodochiis globuloso-depressis, roseo-albis, mollibus, 0,3-0,5 mm. diam.; conidiophoris ramulosis, hyalinis, continuis, elongatis, 3-5 μ. c. cr.; conidiis globosis, hyalinis, continuis, levibus, 6-9 μ. diam.

Hab. parasitica in uredosoris Pucciniæ insolitæ Syd. (in Panico) Kisantu, Congo Africa (VANDERYST).

MENOIDEA Mangin et Hariot Bull. Soc. Myc. France, t. XXIII (1907) p. 67. (Etym. mene luna, ob conidia lunulata). — Sporodochia pulvinata, carnosula, glabra, pallida, erumpentia. Conidiophora simplicia erecta, dense stipate; conidia lunulata, arcuata, continua, hyalina.

Menoidea Abietis Mang. et Har., Bull. Soc. Myc. France, t. XXIII 8796 (1907) p. 67, fig. 9, I-II. — Sporodochiis pallidis hypophyllis minutis, parum conspicuis, 300-400 μ. diam.; conidiophoris bacillaribus, hyalinis continuis, 30-35 × 4-5; conidiis solitarie acrogenis, fusoideo-lunulatis, apice acutiusculis, basi obtusulis, 18-20 × 8, hyalinis

Hab. in foliis Abietis pectinatæ in silva La Savine dicta,
 Java. — Probabiliter Discomycetis cujusdam status conidiophorus.

- ILLOSPORIUM Martius, Syll. IV p. 656, X p. 710, XI p. 646, XIV p. 1117, XVI p. 1093, XVIII p. 662.
- 1. Illosporium Diedickeanum Sacc. Ann. Myc. VI (1908) pag. 563, 8797 tab. XXIV, fig. 9. Maculis vagis latiusculis, subinde confluentibus, cinerescentibus, distinctius epiphyllis, non marginatis; sporodochiis perexiguis, disciformibus, compactiusculis, albo-diaphanis, ambitu orbicularibus, nitidulis, in epiphyllo copiosioribus, laxe gregariis, 130–160 μ. diam., puncto minimo affixis, hinc facillime secedentibus; conidiophoris e cellula ima subrotunda 30–40 μ. diam. radiantibus, oblongo-cylindraceis vel clavulatis, integris vel lobulatis, 30–40 × 14 μ., apice obtusis, ibique conidia (genuina?) globulosa vel subangulosa, singula vel plura 13–14 × 10–11, hyalina gerentibus.

Hab. in foliis Aceris Pseudoplatani, Steigerwald pr. Erfurt Germaniæ (H. Diedicke). — Sporodochia minima, ovula insectorum in mentem revocantia. Species a typo generis aliquid recedens, et denuo inquirenda. Conidiophora apice subinde asperula videntur

- SPHACELIA Lév. Syll. IV p. 666, XIV p. 1118, XVI p. 1093, XVIII p. 663.
- Sphacelia Miscanthi P. Henn., Engl. Jahrb. XXXVII (1905) p. 166. 8798
   Sclerotiis oblonge turbinatis apice obtuse incrassatis, atris, c. 3 mm. longis, 1 mm. latis; sporodochiis ceraceo-farinosis, pallidis; conidiophoris fasciculatis, continuis, filiformibus, hyalinis, c. 2 μ. cr.; conidiis acrogenis oblonge fusoideis, continuis, hyalinis, 5-8 × 2.

Hab. sclerotia in ovariis Miscanthi sinensis, Me Yanaze Tosa Japoniæ (Yoshinaga).

2. Sphacelia Allii Vogl. Staz. sperim. agr. it. XXXVI (1903) p. 89, 8799 tab. I-II. — Rubescens, e Sclerotio cepivoro oriens; conidiophoris ex hypostromate applanato nascentibus, fasciculatis, stipatis, septatis, hyalinis, parce ramulosis 40-50 μ. longis, apice pseudosterigmatibus subverticillatis acutis brevibus coronatis; conidiis copiosis globosis solitariis v. breviter catenulatis, 1-guttulatis, levibus, hyalinis 2-4,5 μ. diam.

Hab. in Sclerotio cepivoro in bulbis Allii sp. in Pedemontio.

**ÆGERITA** Pers. — Syll. IV p. 661, X p. 711, XI p. 647, XIV p. 1118, XVIII p. 663.

Ægerita perpusilla Desm., Ann. Sc. Nat. ser. II, v. XIV (1840) 8800 p. 9. tab. I, fig. 3. — Candida, minutissima, conferta, granuliformis; sporodochiis globosis vel ovoideis, vix <sup>1</sup>/<sub>6</sub> mm. attingentibus; conidiis hyalinis, inæqualibus, globosis, ovoideis, piriformibus vel difformibus, 10-12 μ. diam.

Hab. ad ligna putrida, in Gallia.

2. Ægerita Traversiana L. Gaja, Flora Micol. prov. Padova, p. 24 8801 (sunto litogr.). — Sporodochiis superficialibus, gregariis, inæqualiter subglobosis, 300-350 μ. diam., lacteis, ad instar flocculorum sparsis; hyphis hyalinis subcylindraceis, rectis, septatis, in fasciculos dense unitis, circiter 100-120 × 5-6, ad apicem præcipue ramulosis; conidiis subglobosis, solitariis, hyalinis, intus nubilosis, breviter basi apiculatis, 18-20 × 13-15.

Hab. in cavernulis trunci cariosi, Arquà in Euganeis ad ripam lacus, Ital. bor. (L. Gaja).

3. Ægerita Webberi Fawcett, Mycologia II (1910) p. 167, tab. XXVIII- 8802 XXIX. — Sporodochiis epiphyllis superficialibus, subglobosis, albidis, dein rubenti-brunneis, 60-90 μ. diam., appendices 3-5 ferentibus; cellulis conidiomorphis, globosis v. ellipsoideis, hyalinis, tenui-tunicatis, 12-18 μ. diam., glomerulatis; appendicibus rectis, crasse tunicatis, 2-3-septatis, apice rotundatis, 150-200 × 6-8, sursum tenuatis ibique 4-6 μ. cr., e sporodochii basi orientibus; hyphis fertilibus e hyalino fuscellis, parce ramosis, remote septatis, pag. sup. foliorum effusis; stromatibus hypophyllis, pustulatis, castaneo- brunneis, e plano convexis, 0,5-2 mm. diam., ex hyphis crasse tunicatis, intricatis formatis, margine submembranaceis, griseo-fulvis et mycelio late effuso circumdatis.

Hab. ad larvas Aleyrodis Citri et Al. nubiferæ in foliis Citri Aurantii, socia Aschersonia Aleyrodis in Florida. — Quo modo fungillus ex conceptaculis omnino difformibus constitutus sit non liquet.

#### SPHÆROSPORIUM Schw. — Syll. IV p. 664.

Sphærosporium argentinense Speg., Myc. Arg. V, p. 451, in An. 8803
 Mus. Nac. Buenos Aires XX (1910). — Sporodochiis late effusis
 suborbicularibus, 5-10 mm. diam., pallide carneis subcarnosulis
 ambitu araneosulis pallidioribus; hyphis tenuissimis dense intricato-ramulosis, 1-1,5 μ. diam., pauci-septatis; conidiis subgloboso-angulatis, 5-20 μ. diam., crasse tunicatis, levibus, hyalinis, grosse
 guttulatis.

Hab. ad ramos dejectos putrescentes in silvis prope Formosa Argentina Amer. austr. (E. Kermes).

## FUSICOLLA Bonord. — Syll. IV p. 664, X p. 712.

Fusicolia? oidioides Speg., Myc. Arg. V, p. 453, in An. Mus. 8804
 Nac. Buenos Aires XX (1910). — Maculis nullis; sporodochiis epiphyllis subglobosis 50-100 μ. diam., densiuscule gregariis plagulam suborbicularem, 3-7 mm. diam., candidam tenuissime farinosulam efficientibus, glabris; conidiophoris cylindraceis, 10-15 × 2, hyalinis continuis constipatis, apice subtruncatis, 1-2-spermis; conidiis sublunatis continuis, 10-20 × 3, levibus, hyalinis.

Hab. ad folia viva Cardios per mi Halicacabi in dumetis prope Posadas Argentina Amer. austr.

#### SPHÆROCOLLA Karst. - Syll. XI p. 648.

Sphærocolia argentinensis Speg., Myc. Arg. V, p. 454, in An. Mus. 8805
 Nac. Buenos Aires XX (1910). — Sporodochiis sparsis v. hinc inde pauci-gregariis, primo subhemisphæricis, 100-250 μ. diam., tremelloideis dein difformibus sæpeque confluentibus; conidiophoris a basi ramulosis, 20 × 1,5-2, rectiusculis, acutiusculis, continuis; conidiis catenulatis, globos, 2-3 μ. diam., eguttulatis levibus hyalinis.

Hab. ad corpora Dactylopii citricolæ in Citro Aurantio Santo Tomé Corrientes Argentina Amer. austr.

2. Sphærocolla citrina Speg., Myc. Argent. V, p. 455, in An. Mus. 8806 Nac. Buenos Aires XX (1910). — Sporodochiis sparsis v. laxe gregariis tremelloideis, primo cupularibus v. patellaribus 0,5-1 mm. diam., superne applanatis v. concaviusculis inferne coarctatulis, non v. breviter stipitatulis, serius subdiffluentibus, et difformibus, per corticis rimulas protrudentibus; conidiophoris tenuissimis diffluentibus; conidiis catenulatis, globosis, 2 μ. diam., eguttulatis levibus.

Hab. ad radices emortuas v. languentes Pini maritinæ, Villa Elisa prope La Plata Argentina Amer. austr.

HYMENULA Fr. — Syll. IV p. 667, X p. 712, XI p. 647, XIV p. 1118, XVI p. 1093, XVIII p. 664.

Hymenula Hariotiana Sacc. Not. Myc. VII, Ann. Myc. IV (1906) 8807
 p. 275. — Sporodochiis superficialibus, applanatis, ambitu oblongis, 1 mm. long., 0,5 mm. lat., pelliculiformibus, e miniato auran-

tiacis, anguste albo-marginatis; conidiis copiosis, cylindraceis, utrinque rotundatis, obsolete et minutissime 2-guttulatis, rectiusculis,  $5-6 \approx 1$ , hyalinis, coacervatis dilutissime roseis; conidiophoris dense stipatis, bacillaribus, e strato proligero minute celluloso oriundis,  $8-9 \approx 1$ , subhyalinis.

Hab. in ramulis emortuis Sarothamni scoparii prope Parisios in Gallia; legit et communicavit P. Hariot. — Ab affini Hymenula rubella distinguitur sporodochiis albo-marginatis, conidiophoris multo brevioribus, matrice omnino diversa.

2. Hymenula aurantiaca Lindau, in Rabenh. krypt. Fl. IX, pag. 419 8808 (1909). — Sporodochiis adnatis, oblongis, tenuissimis, ambitu irregularibus, ½-¾ mm. lat., primo dilute rubris, veluti pellicula alba indutis, dein aurantio-rubris, margine lacinulis minutis cinctis; conidiophoris... non visis; conidiis tereti-oblongis, utrinque rotundatis, hyalinis, 5,5-7,5 × 1.

Hab. in foliis vetustis Vincæ minoris pr. Triglitz, Brandenburg (JAAP).

3. Hymenula Elasticæ Koord., Bot. Untersuch. Java (1907) p. 241 f. 52. 8809
— Sporodochiis disciformibus, orbicularibus, calvis, pallide roseis,
c. 220 μ. diam.; conidiis in apice conidiophororum simplicium acrogenis, ovoideis, utrinque rotundatis, continuis, hyalinis, 4-5 × 2-2,5, levibus.

Hab. in partibus emortuis v. languidis foliorum Fici elasticæ prope Purworedjo et Sapuram prov. Kedu Java sept.-oct. 1905 (KOORDERS).

4. Hymenula rhodella Jaap, Abh. bot. Ver. Prov. Brandenb. IL 8810 (1907) p. 13, et L (1908) p. 50. — Sporodochiis tenuiter membranaceis, oblongis, irregulariter marginatis, usque ad 1 mm. diam., aurantio-rubris, margine albo; conidiophoris dense stipatis, indivisis, raro furcatis, usque ad 23 × 1, hyalinis; conidiis oblongo-ellipsoideis, utrinque obtusis, hyalinis, 3-4,5 × 1.

Hab. in foliis siccis dejectis Pini silvestris prope Triglitz in Brandenburgia (JAAP). — Socia adest Niesslia pusilla (Fr.) Schröter.

# DACRYMYCELLA Bizz. — Syll. IV p. 671.

Dacrymycella Beijerinckii Koord., Botan. Untersuch. Java (1907) 8811
 p. 241, fig. 53. — Sporodochiis discoideis, aurantiaco-roseis, sparsis, amphigenis, subgelatinosis, 650-675 μ. diam., basi angustatis et 300 μ. diam., superficialibus, glabris; conidiophoris filiformibus, distincte

et longe ramosis ubique, basi excepta, verruculoso-conidiferis, hyalinis; conidiis ovoideis, continuis, hyalinis,  $4-4.5 \times 3$ , utrinque rotundatis, levibus.

Hab. in foliis emortuis putrescentibus Fici elasticæ prope Purvoredjo prov. Kedu Java (Koorders).

- SPHACELIOPSIS Speg., Myc. Arg. V, p. 457, in An. Mus. Nac. Buenos Aires XX (1910). (Etym. Sphacelia, cujus est analogum genus). Stroma substrato innatum, subceraceum, biophilum, læticolor; conidia bacillaria hyalina. A gen. Kmetia vita biophila recedens.
- 1. Sphaceliopsis cypericola Speg. l. c. p. 457, cum icon. Stro-8812 mate bracteis adhuc inevolutis anthelarum innato, subcoalescenti, ceraceo-subcarnosulo, melleo, pruinula cinerescenti vestito, 5-10 mm. diam.; conidiis rectiusculis, continuis, utrinque attenuato-acutatis 15-20 × 1, levibus, eguttulatis.

Hab. ad anthelas deformatas incrassatas Cyperi vegeti in uliginosis prope La Sábana Chaco Argentina Amer. austr.

- CYLINDROCOLLA Bon. Syll. IV p. 673, X p. 715, XI p. 648, XIV p. 1119, XVI p. 1904, XVIII p. 665.
- 1. Cylindrocolla cæsia B. R. S., in Saccardo, Not. Myc. VI, Ann. 8813 Myc. III (1905) p. 510. Sporodochiis gregariis, applanato-effusis, ambitu suborbicularibus v. plus minus elongatis, subgelatinosis, griseo-prasinis, margine albo subbyssino; conidiis cylindraceis, subrectis, utrinque obtusulis minuteque 1-guttulatis, 8-10 × 1-1,5, in conidiophoris filiformibus, subramosis, 25-30 × 1, acrogenis et catenulatis.

Hab. ad caules emortuos Umbelliferarum, Verviers Belgii.
2. Cylindrocolla musicola Speg. Myc. Arg. V, p. 453, in An. Mus. 8814

Nac. Buenos Aires XX (1910). — Sporodochiis sparsis superficialibus hemisphæricis 150-500 μ. diam., sessilibus, subgelatinosis opalinis, glabris; hyphis cylindraceis dense constipatis, 50-60 × 2-3, flexuosis, continuis, apice subcapitulatis; conidiis catenulatis forma variabilibus, e subcylindraceo subfusoideis 6-12 × 3-6, hyalinis levibus, sæpius grosse uniguttulatis.

Hab. ad epicarpium Musæ paradisiacæ subputrescens, La Plata Argentina Amer. austr.

SPHÆRIDIUM Fres. — Syll. IV p. 675, X p. 716, XVIII p. 666.

1. Sphæridium Cubonianum Sacc., in Ann. Mycol. X (1912) p. 321. 8815 — Sporodochiis superficialibus, pulvinatis, sessilibus, compactiusculis, brunneolis, siccis nigrescentibus, 350 μ. diam. glabris; conidiis in catenas longas, filiformes, dense fasciculatas, sæpe furcatas, 100-130 × 1,5-2 dispositis, bacillaribus, rectis, utrinque truncatis, satis cohærentibus, 8-12 × 1,5, hyalinis, concervatis melleoflavidulis.

Hab. in ligno putrescente Alni glutinosæ, Vittorio, Treviso, Ital. bor. (G. Cuboni). Species bene distincta.

2. Sphæridium luteum v. Höhn. in Lindau Krypt. Fl. Pilze IX, 8816 p. 475 (1909). — Sporodochiis globosis, ad basim conico-tenuatis, superficialibus, luteis, 200 μ. diam.; conidiophoris brevibus, indivisis, parallele dense stipatis; conidiis cylindricis, rectis, utrinque rotundatis, hyalino-flavidis, 12-14 × 1,5, in catenulas parallelas dispositis.

Hab. in ramis dejectis pr. Hütteldorf, Wienerwald Austriæ (v. Höhnel).

3. Sphæridium javense v. Höhn. Stzb. k. Ak. d. Wiss. Wien CXVIII, 8817 Abt. I (1909) p. 423. — Sporodochiis superficialibus, gregariis, globosis, sessilibus, albidis, siccis 100, vegetis 250-300 μ. diam.; parte basilari hemisphærica 130 μ. lata, radiatim minute cellulosa, conidiophoris brevibus simplicibus crebre tecta; conidiis cylindraceis utrinque truncatis, hyalinis, intus granulosis, rectis, continuis, 22-26 × 1,7-1,8 in catenas longas mucoso-connexis.

Hab. in ramis, Tjiburrum pr. Tjibodas in ins. Java.

PATELLINA Speg. — Syll. III p. 622, IV p. 677, X p. 717, XIV p. 1120, XVI p. 1095, XVIII p. 666.

1. Patellina mellea B. R. S., in Sacçardo, Not. Myc. VI, Ann. Myc. 8818 III (1905) p. 510. — Sporodochiis discoideis, ambitu orbiculatis v. rarius confluendo elongatis, sessilibus, submarginatis, disco convexo carnoso-ceraceo, 300-500 μ. diam., albido-succineo; conidiis globulosis, numerosissimis, hyalinis, 1,5-2 μ. diam., in conidiophororum filiformium 60 μ. long. ramis copiosis breviusculis, 9-15 μ. long. erectis densis acrogenis.

Hab. ad corticem Pini silvestris, Hestreux Belgii (MARIA ROUSSEAU).

2. Patellina subconoidea Speg., Myc. Arg. V, p. 453, in An. Mus. 8819 Nac. Buenos Aires XX (1910) — Sporodochiis sparsis v. laxe gregariis subhemisphæricis, atris, disco depresso albido, serius elongato-conoideis 0,5-1 mm. alt. 350-500  $\mu$ . cr., extus cinereis intus albis, sed sub cortice tunica atra tectis, glabris, disco initio farcto subaurantiaco dein diffluente atque cavitatem subcylindricam relinquente donatis; conidiis ellipsoideis utrinque rotundatis, 3-4  $\approx$  2-3, levibus hyalinis, minute biguttulatis.

Hab. ad petiolos putrescentes Phænicis canariensis in horto Santa Catalina prope Buenos Aires, Argentina.

#### THOZETIA Berk. — Syll. IV p. 679.

 Thozetia nivea Berk. — Syll. IV p. 679. — Cfr. ejus descriptio-8820 nem a cl. v. Höhn. datam in Fragm. Myk. VI p. 149. Species nascitur quoque in Java.

#### PERIOLA Fr. - Syll. IV p. 681.

1. Periola cerasicola Speg., Myc. Arg. V, p. 455, in An. Mus. Nac. 8821 Buenos Aires XX (1910). — Sporodochiis dense constipatis erumpentibus subglobosis, 50-100 μ. diam., primo compactiusculis ceraceis ochroleucis laxe pilosis, serius subsuccineis ac diffluentibus; pilis vermicularibus 100-150 × 2-3, septulatis, sæpe furcatis, minute guttulatis; conidiis ellipsoideis v. obovatis utrinque rotundatis, 8-10 × 3-4, dichotomice catenulatis, continuis, non v. grosse biguttulatis levibus hyalinis.

Hab. ad fructus Cerasi duracinæ ex Coryneo Bejerincki laborantes in hortis La Plata Argentina Amer. austr. — An Corynei status metageneticus? An in Corynei mycelio parasitans?

VOLUTELLA Tode — Syll. IV p. 682, X p. 718, XI p. 649, XIV p. 1120, XVI p. 1096, XVIII p. 666.

1. Volutella alba (Peyl) Sacc. et Trav., Syll. XX p. 1135, Chæto-8822 stroma album Peyl, Lotos VII (1857) pag. 66, tab. II, fig. 9.—
Sporodochiis molliusculis, subglobosis, basi in stipitem tenuem flocculosum tenuatis, niveis, a stipite usque ad medium sporodochium setulis longis, tenuibus, albo-hyalinis vestitis, parte superiore nudatis; conidiis minutis, ellipsoideis, hyalinis.

Hab. in foliis dejectis Nerii Oleandri et Cordylines rubræ, nec non in squamis bulborum Amaryllidacearum, Kacin Bohemiæ (Peyl).

2. Volutella obtusipila Speg., Myc. Arg. V, p. 456, in Anal. Mus. 8823

Nac. Buenos Aires XX (1910). — Sporodochiis sparsis v. hine inde pauci-gregariis, superficialibus sublenticularibus 1-2,5 mm. diam. subceraceis, roseo-aurantiaceis, cinereo-setulosis; setulis erectis 50-100  $\times$  5-6, sursum leniter incrassatis levibus obtusissimis sæpius biseptatis; conidiis subcylindraceis utrinque subtruncato-rotundatis  $10-12 \times 2$  minute guttulatis, rectis v. inæquilateralibus, continuis hyalinis.

Hab. ad caules putrescentes Martyniæ luteæ in arvis circa La Plata Argentina Amer. austr.

3. Volutella cucurbitina Peck, N. Y. St. Mus. Bull. 131 (1909) p. 28. 8824 — Sporodochiis orbicularibus, in maculis orbicularibus dense confertis, interdum confluentibus, oculo inermi brunneo-purpureis, ætate brunnescentibus, setis gracilibus subulatis, nigris, 60-120 × 3-4 ornatis; conidiis oblongis, obtusis, hyalinis, 10-22 × 4-5; conidiophoris brevissimis v. obsoletis.

Hab. in cortice contuso Cucurbitæ Peponis, Menands, Albany Co. Amer. bor.

4. Volutella minima v. Höhn. Fragm. Mykol. IX (1909) pag. 83. — 8825 Sporodochiis sparsis, superficialibus, albis, obconicis, 120 μ. altis, 30-50 μ. lat., superne 40-70 μ. lat., ex hyphis parallelis, 1,5 μ. cr., compactis, transverse zonatis; setis 2-4 e basi orientibus hyalinis, crassissime tunicatis, non v. obsolete septatis, obtusulis, rigidis, parce flexis, 140-400 ≈ 5-8, sursum tantum 3-4 μ. cr., in ambitu sporodochii insertis; conidiophoris brevibus, simplicibus, stipatis; conidiis rectis, oblongo-cylindraceis, hyalinis, in capitulum 60 μ. lat. dein conglobatis, non catenulatis, 3-5 × 1-1,5, plasmate bipartito.

Hab. in foliis putrescentibus Pandani sp., socia Nectria ignea, in silvis Tjibodas Javæ.

5. Volutella Elasticæ Koord., Botan. Untersuch. (1907) p. 245, fig. 56. 8826 — Sporodochiis sparsis, disciformibus, stipitatis, irregularibus, flavis, 300-400 μ. diam.; disco setis numerosis, hyalinis, filiformibus, continuis, basi spurie septatis, hyalinis, 600-800 μ. longis, acutissimis ornato; conidiis continuis, hyalinis, cylindraceis, utrinque rotundatis, rectis, levibus, 5-6 × 1,5-1,7.

Hab. in foliis putrescentibus Fici elasticæ prope Loano Purworedjo prov. Kedu (Java) majo 1906 (Koorders).

6. Volutella Jaapi Bres., in Jaap, Verh. Bot. Ver. Prov. Brandb. L 8827 (1908) p. 50. — Sporodochiis gregariis, sæpe confluentibus, sessilibus, pulvinatis v. hemisphæricis aurantiacis, 0,3-1 mm. diam.;

hyphis sterilibus hyalinis, basi ramosis, apice rotundatis, circa sporodochium expansis; conidiophoris ramosis prælongis, basi 3-5  $\mu$ . cr.; conidiis ovoideis, ellipsoideis v. oblongis, hyalinis, sæpe guttulatis,  $4-6 \approx 2,5-3$ .

Hab. in trunco emortuo decorticato Pini sp. Sachsenwald pr. Hamburg Germaniæ (JAAP).

7. Volutella corticioides Lindau in Rabenh. Krypt. Fl. Pilze IX, 8828 p. 491 (1909). — Mycelio late effuso, maculas irregulares flavidas v. albidas generante; sporodochiis sessilibus, copiosis, subgregariis, <sup>1</sup>/<sub>5</sub>-<sup>1</sup>/<sub>2</sub> mm diam. flavis, margine albo-pilosulis, disco convexohemisphærico, basi strato nigricante suffultis; setis septatis, hyalinis, simplicibus, crasse tunicatis, apice obtusulis et subinde etiam inflatulis, radiantibus, 100-240 × 5-6, superne 2,5-3 μ. cr.; conidiophoris stipatis, bacillaribus, obtusulis, 19 × 1; conidiis ellipsoideis, utrinque obtusis, copiosissimis, hyalinis, coacervatis flavidulis, 4 × 1.

Hab. in truncis emortuis (Ulmi?) in calidariis Horti botanici veteris Berlolinensis, Germ. (Hennings).

8. Volutella javanica v. Höhn. Stzb. k. Ak. d. Wiss. Wien CXVIII, 8829 Abt. I (1909) p. 425 cum icon. — Sporodochiis albis, stipitatis stipite læte flavo-brunneo, sursum incrassato, prope medium sæpe protuberanti-anulato, 200 × 90, ex hyphis 4-5 μ. cr., solidiusculis conflato, supra in discum convexum minute plectenchymaticum, 200 μ. latum, 70 μ. alt. abeunte; disco ex conidiophoris parallelis, simplicibus hyalinis 24-32 × 1 constante, et margine setulis tortuosis, hyalinis 2-4-septatis, 40-100 × 3-3,5 cincto; conidiis in stratum 250-300 μ. lat. subglobosum mucosum conglutinatis, fusiformibus, utrinque acutis, leniter curvis, 8-12 × 1. hyalinis.

Hab. in ramis vivis Tjiburrum pr. Tjibodas Javæ.

9. Volutella ciliata Fres. — Syll. IV p. 682. — Huc ducenda est 8830 Psilonia Medicaginis de Brond. Recueil Crypt. Agen. III (1830) p. 37, t. 10, fig. 47, Leptotrichum Medicaginis (de Brond.) Roumeguére Cryptog. illust. p. 110, fig. 506. — In radicibus putridis Medicaginis sativæ in Gallia.

TRICHOFUSARIUM Bubák, Bull. Herb. Boiss. 2 sér. VI (1906) p. 488 (Etym. thrix, trichos pilus et Fusarium). — Sporodochia pulvinata, subepidermica, mox erumpentia, minuta, læte colorata, gelatinosa, setulis pallidis subsparsis cincta. Conidiophora dendroi-

deo-ramosa. Conidia fusoidea, continua, hyalina. — A gen. Periola et Volutella imprimis conidiis fusoideis dignoscendum genus.

1. Trichofusarium Rusci (Sacc.) Bubák, l. c. p. 488. — Fusarium 8831 roseum var. Rusci Sacc., Syll. IX p. 521. — Sporodochiis subepidermicis dein erumpentibus, subrotundis, v. ellipsoideis, rubellis, subgelatinosis, 90-220 μ. diam., setulis 90-120 × 5-7, undulatis, sursum tenuatis apice rotundatis, hyalinis cinctis; conidiophoris 20-100 μ. long., ramosis, ramis ad apicem tenuatis, 2-3 μ. cr., e hyalino rubellis; conidiis fusoideis, inæquilateris, rectis curvulisve, 1-cellularibus, minute guttulatis, rubellis, 10-24 × 3-4,5.

Hab. in cladodiis emortuis Rusci aculeati, Italia et Montenegro.

2. Trichofusarium Bartholomæi (Peck) Sacc., Fusarium Bartholomæi 8882 Peck, Bull. Torr. Bot. Cl. XXXVI (1909) p. 157. — Sporodochiis compactis, subglobosis, oblongis v. grulvinatis, in series digestis, albidis, epidermide elevata diu tectis; conidiophoris gracilibus, rectis, confertis, 40-60 \* 1-2; conidiis pacilibus, curvatis, 5-6 nucleatis, continuis, hyalinis, in setula tenuissima utrinque terminantibus, 15-25 \* 1-2, setulis 10-12 μ. longis.

Hab. in pagina inferiori foliorum Sorghi (Sorghastri) nutantis, Stockton Kansas, Amer. bor. (Е. Вактносоме).

### Sect. 2. Hyalodidymæ

LEPTOTRICHUM Corda. — Syll. IV p. 690.

Leptotrichum Kickxiæ P. Henn., Engl. Jahrb. XXXVIII (1905) 8888
 p. 126. — Stromatibus conidiophoris ceraceis, pulvinato-erumpentibus, flavidulis; hyphis hyalinis, ramosis; conidiis cylindraceis, obtusis, 8-14 × 2,5-3, medic septatis.

Hab. in ramis emortuis Kickxiæ elasticæ, Victoria Kamerum, Africæ centr. -- Status ascophorus est Nectria Kickxiæ.

- FUSISPORELLA Speg., Myc. Arg. V, p. 454, in An. Mus Nac. Buenos Aires XX (1910). (Etym. Fusisporium (Fusarium) cujus affine genus). Sporodochia gossypinula, ex hyphis tenuibus conferte dichotomis constituta; conidia fusoideo-lunata uniseptata hyalina catenulata, in ramulorum apicibus acrogena.
- Fusisporella Bufonis Speg, l. c. p. 454 cum icon. Sporodochiis 8834 subhemisphæricis, 200-500 μ. diam., sordide virescenti-roseolis, 8yll. Fung. XXII (VII-1913)

gregariis, sæpe confluentibus, superficialibus; hyphis erectis, ter quater bifidis,  $50\text{-}100 \approx 2$ , laxissime septulatis levibus; conidiis e fusoideo navicularibus modice curvulis utrinque acutato-subrotundatis,  $16\text{-}18 \approx 3\text{-}3.5$ , primo continuis dein uniseptatis, hyalinis, levibus, in catenulas 4-5 articulatas digestis.

Hab. ad cutem Bufonis murini putrescentis in Parque La Plata Argentina Amer. austr.

### POTOUILLARDIELLA Speg. - Syll. X p. 721, XVIII p. 668.

1. Patouillardiella Mougeotiana (Sacc. et Roum. ex p.) Sacc. Lepto-8835 thyrella Mougeotiana Sacc. et Roum. Rev. Mycol. (1885) p. 160, t. 55, f. 5 (tantum quoad fructificationem et excl. pycnid.) — Acervulis superficialibus, sparsis, depresse pulvinatis, ambitu oblongis, 300-500 μ. long. 250 μ. latis, ceraceis, roseis, glabris; conidiis ex hypostromate valde depresso obscure celluloso, sordide roseo oriundis, copiosis, fusoideis, sæpe leviter inæquilateris, utrinque obtusulis, 1-septatis, non constrictis, 24-28 × 4, dilutissime roseis, hyalinis; conidiophoris stipatis, bacillaribus, simplicibus v. e basi furcatis, 20-25 × 3 concoloribus, apice monosporis.

Hab. in foliis emortuis Pini silvestris in Pyrenæis. — Socia adest Sirothyriella Pinastri v. Höhn. ad quam spectant pycnidia et sporulæ allantoideæ minutæ l. c. descripta, non vero conidia bilocularia majuscula! — Patouill. javanica Penz. et. Sacc. a typo recedit conidiis breviter catenulatis.

### Sect. 3. Hyalophragmiæ.

BACTRIDIUM Kunze — Syll. IV p. 691, XIV p. 1123, XVIII p. 669.

Bactridium minutum Sacc. Not. Myc. VIII, Ann. Myc, IV (1906) 8836
 p. 277. — Sporodochiis gregariis, perexiguis, superficialibus, subglobosis v. hemisphæricis, amæne roseis, 150-160 μ. diam., tenere ceraceis; conidiis cylindrico-fusoideis, plus minus curvis, utrinque obtuse leviterque tenuatis, ut plurimum 6-septatis, non constrictis, 78-84 × 5-5,5, ex hyalino roseis, intus granulosis (sæpe germinantibus); conidiophoris stipatis paliformibus utrinque truncatis, 10 × 4-4,5, ex hyalino roseis.

Hab. ad ligna putrescentia dejecta in silvis pr. Lyndonville N. Y., Amer. bor., socio Helicoo Fairmani (FAIRMAN). — Minutie partium a ceteris speciebus omnino distinctum.

2. Bactridium americanum v. Höhnel, Ergeb. Bot. Exp. Südbras. 8837 (1901) Denk. k. Ak. d. Wiss. Wien Bd. LXXXIII (1907) Extr. p. 38. — Sporodochiis globulosis, 500-800 μ. diam., vegetis mollibus, læte aurantiacis, siccis ochraceo-flavis, minute granulosis, sessilibus v. basi in stipitellum 280 × 250 productis, ex hyphis inæqualibus et laxe intertextis usque ad 16 μ. cr. constantibus; conidiophoris septatis, 5-8 μ. cr., ad marginem brevibus et simplicibus, ad centrum, usque ad 200 μ. longis et subdichotomice ramosis; conidiis solitarie acrogenis, in stratum singulum dense radiatim dispositis, marginalibus 140 × 40-45, centralibus usque 220 × 40-45, crasse tunicatis, plerumque 7-cellularibus, fusiformibus, utrinque obtuse tenuatis, contentu flavido, cellulis longitudine subæqualibus.

Hab. in ligno et ramis putrescentibus, Sao Paulo Brasiliæ Schiffner). — Bactr. flavo affine sed bene distinctum.

MICROCERA Desm. — Syll. IV p. 727, X p. 731, XI 653, XVI p. 1097, XVIII p. 669,

1. Microcera curta Sacc. Ann. Mycol. VII (1909) p. 437. — Sporo-8838 dochiis gregariis, depresse globulosis, <sup>1</sup>/<sub>2</sub>-<sup>3</sup>/<sub>4</sub> mm. latis, subroseis, compactiusculis, nitidulis; basidiis seu conidiophoris dense fasciculatis, filiformibus, apice plerumque trifidis, 25-35 ≈ 2,5 hyalinis; conidiis cylindraceis, utrinque, pracipue apice curvatis, obtusis, 3-septatis, non constrictis, 20-25 ≈ 4-5 e hyalino dilutissime roseis.

Hab. in scutellis Coccorum ad ramos vivos Tiliæ platy-phyllæ, Tamsel Germaniæ (P. Vogel). — A Micr. coccophila, in Coccis quoque parasiticâ, conidiis admodun brevioribus etc. dignoscitur et pariter ad Fusarii genus nutat.

FUSARIUM Link — Syll. IV p. 694, X p. 721, XI p. 649, XIV p. 1123, XVI p. 1097, XVIII p. 670.

Conspectus analyticus specierum plurimarum Fusarii generis sec. Appel et Wollenweber 1. infra c. p. 59 \*).

A. Conidia subæquilatera, rectiuscula.

I. Conidia subcylindrica, 1-septata, subrecta, basi subapiculata.

F. didymum Hart.

<sup>\*)</sup> Cfr. amplam de genere dissertationem cll. APPEL et WOLLENWEBER titulo Grundlage einer Monographie der Gattung Fusarium in Arb. d. k. biol. Anstalt f. Land- und Forstwirth. Berlin VII (1910), præsertim culturæ ope peractam. Ex ea conspectum analyticum deprompsi.

- II. Conidia subcylindrica, sub-5-septata, leviter curva, utrinque F. Willkommii Lind. rotundata.
- B. Conidia conspicue inæquilatere, apicibus varie attenuatis, curvata, basi apiculata.
- I. Conidia apices versus magis curvata, quam ad medium.
- a) Species chlamydosporis terminalibus præditæ (præter intercalares).
  - 1. Massa conidiorum ochracea, salmoneo-aurantio tincta.
    - α Conidia typice non septata.

F. orthoceras A. et W. (nov. nom.)

β Conidia typice 3-septata.

F. cæruleum (Lib.)

- 2. Massa conidiorum brunneo-albida.
  - α Conidia typice 3-septata.

F. Solani Mart.

- β Conidia typice 3-4-septata.
- \* Mycelium colorem cyaneum secernens

F. Martii A. et W.

\*\* Mycelium colorem olivaceum secernens.

F. Theobromæ A. et Str.

- b) Species chlamydosporis terminalibus carentes (quædam chlamydosporis intercalaribus præditæ). Conidia apice subapiculata.
  - 1. Massa conidiorum ochracea v. salmoneo-aurantio tincta.
  - α Conidia typice 3-5-septata.
  - \* Mycelium colorem carmineum edere potest. F. discolor A. et W.
  - \*\* Mycelium colorem carmineum non secernit, sed flavum v. ochraceum.

F. discolor var. sulphureum Schl.

- β Conidia typice 5-septata.
- \* Conidia 5-5,5 μ. cr.

F. rostratum A. et W. (n. n.)

\*\* Conidia 6-7 µ. cr.

F. rubiginosum A. et W.

- II. Conidia medio et apicibus æqualiter curvata.
- a) Conidia medio angustata.
  - α Conidia typice 1-septata.

F. aquæductuum Radl. et Rab.

- β Conidia typice 5-septata.
- \* Hypostroma non plectenchymaticum.
- \*\* Hypostroma paraplectenchymaticum.
- F. metachroum A. et W. F. subulatum A. et W.

- b) Conidia medio crassiora.
  - α Conidia typice 5-septata.
  - β Conidia typice 5-7-septata.

- F. falcatum A. et W.
- F. gibbosum A. et W.
- 1. Fusarium didymum (Harting) Lindau, Deut. Krypt. Fl. Pilze IX, 8839 p. 574 (1909) Fusisporium didymum Harting, Rech. nat. et caus. malad. pomme de terre Amsterd. 1846, p. 228, cum tab.; Appel et Wollenw. Arb. k. biol. Anst. f. Land- u. Forstw. VIII (1910) p. 38 et 42, c. ic. — Hyphis sterilibus repentibus, dense intricatis

infra brunneis, sursum albis; conidiophoris albis, tenuissimis, ascendentibus, ramosis, parce septatis, suberecto-ramosis; conidiis acrogenis, vix curvis, obtusis, 1-septatis (2-sept. sec. Lindau) 26-33 µ. longis.

Hab. in tuberibus Solani tuberosi in Hollandia (HARTING).

Fusarium orthoceras App. et Woll. n. n., Arb. k. Biol. Anst. f. 8840
 Land.- u. Forstw. VIII (1910) pag. 141, t. I, f. 60-64, t. III, f. 2,
 Fusarium oxysporum Sm. et Swingle, non Auct.

Hab. in tuberibus, radicibus et partibus caulis hypogæis Solani tuberosi in Germania, Norvegia, verisimiliter in tota Europa et Amer. bor.

3. Fusarium Martii App. et Wollen. Arb. k. biol. Anstalt f. Land. 8841 u. Forstw. VIII (1910) p. 78-83, f. 5 (in textu p. 82), Fusisporium Solani Martius p. p. — Cfr. Syll. IV, p. 705.

Hab. in tuberibus partim emortuis Solani tuberosi non raro in Germania etc.

4. Fusarium discolor App. et Woll. Arb. k. biol. Anst. f. Land.- u. 8842 Forstwirtsch. VIII (1910) p. 108, p. 104, t. I, f. 50-59, t. III, fig. 7.

Hab. in caulibus partim emortuis Solani tuberosi. — Var. sulphureum (Schlecht.) App. et Woll., l. c. p. 115, Fusarium sulphureum Schlecht. Fl. Berol. II, p. 139. — In cavitatibus tuberum putrescentium Solani tuberosi in Germania.

Fusarium rostratum App. et Wollenw. n. n., Arb. k. Biol. Anst. 8843
 f. Land.- u. Forst. VIII (1910) p. 30, fig. E, 1-13, p. 60, 193 etc.
 Fusarium roseum Auct. ut stat. conidioph. Gibberellæ Saubinetii
 (Mont.) Sacc. — Syll. II, 554.

Hab. in caulibus plantarum variarum in tota fere Europa.

Fusarium rubiginosum App. et Woll. Arb. k. biol. Anst. f. Land- 8844
 Forstw. VIII (1910) p. 95 et 108, t. I, f. 31-48 et fig. 8, in textu, Fusisporium Solani Schacht, non Auct.

Hab. in tubere momificato, subputri Solani tuberosi, socio Fus. subulato in Germania. — Conidiorum acervis ochraceo-rubiginosis imprimis dignoscenda species.

Fusarium metachroum App. et Wollen. w. Arb. k. Biol. Anst. f. 8845
 Land- u. Forstw. VIII (1910) pag. 132-141, t. II, f. 111-118,
 t. III, f. 8.

Hab. in caryopsidibus Tritici vulgaris in prov. Posen.

8. Fusarium subulatum App. et Woll. nov. nom., Arb. k. biol. Anst. 8846 f. Land- u. Forstw. VIII (1910) p. 131, cum icon. p. 39 et tab.

II, f. 65-87, Fusarium roseum var. Lupini-albi Sacc. — Syll. IV,

p. 700 - Fusarium diffusum Carm.

Hab. copiose in Solanaceis et forte quoque in Chenopodiaceis, Graminaceis, Leguminosis in Germania, Britannia, Italia etc.

9. Fusarium falcatum App. et Woll. nov. nom. Arb. k. biol. Anst. 8847 f. Land- u. Forstw. VIII (1910) p. 175-184, tab. II, f. 100-110, t. III, f. 9 et fig. 10 A (in textu p. 187), Fusarium vasinfectum var. Pisi Schikorra, non Van Hall.

Hab. in caule Pisi sativi, cui, teste Schikorra, morbum affert, rarius in caule Solani tuberosi, in Germania.

- 10. Fusarium gibbosum App. et Wollenw. Arb. k. biol. Anst. f. Land-8848 u. Forstw. VIII (1910) p. 185-190, fig. 10 C-D (in textu p. 187).

  Hab. in tuberibus partim emortuis caulibusque Solani tuberosi, raro, in Germania.
- 11. Fusarium elegans App. et Woll. ad interim, Arb. k. biol. Anst. 8849 f. Land- u. Forstw. VIII (1910) pag. 54, 94, fig. 2 B (in textu p. 38).

Hab. (matrix non indicata) in Germania.

12. Fusarium Violæ Wolf in Mycologia II (1910) pag. 21, t. 18. — 8850 Hyphis mycelii hyalinis, 4-7 μ. diam., irregulariter ramosis, matricem truncorum et radicum penetrantibus; sporodochiis innatis, forma indefinitis; macroconidiis hyalinis, fusoideis, falcatis, 28-38 × 4-6, 3-5-septatis; microconidiis continuis 8,5-12,5 × 2-3,5 e conidiophororum ramulis brevibus oriundis.

Hab. in caulibus radicibusque Violæ tricoloris quam desstruit, Lincoln Nebraska Amer. bor.

13. Fusarium niveum E. F. Smith, Proceed. Amer. Ass. f. the Ad-8851 vanc. of Sc. XLIII (1894) p. 289; Un. St. Dep. of Agricult. Div. veget. Pathol. Bull. 17 (1899) p. 49, tab. 1-5 p. p. — A Fusar. vasinfecto imprimis differt colore candido.

Hab in caulibus Citrulli vulgaris cui valde noxium, Amer. bor. — Est status conidiophorus Neocosmosporæ vasinfectæ var. niveæ.

14. Fusarium candidulum Sacc., Ann. Mycol. VI (1908) p. 567. — 8852 Sporodochiis dense gregariis confluentibusque et hinc cæspitulos applanatos laxiusculos 2 mm. diam. efformantibus, candidis; hyphis sterilibus filiformibus repentibus, 2-3 μ. cr., parce tenuissime septatis, hinc inde ramulos breves simplices v. trifidos continuos conidiophoros ascendentes gerentibus; conidiis initio oblongis, cur-

vulis continuis dein fusoideo-falcatis utrinque plerumque obtusulis, 3-septatis, non constrictis, minute guttulatis, hyalinis.

Hab. in magnis ulceribus et circum ea in caule Cerei geometrizantis, Apaseo, Mexico (Bonansea). — Quo morbo dicta ulcera generentur tam magna et crebra, in Cerei caulibus, nondum liquet, sed ea fungillis modo descriptis, forte saprogenis, ægre tribui possunt; tamen sub iisdem interdum caulis substantia (ob eorum mycelium?) late et profunde nigrescit.

15. Fusarium udum Butler, Mem. Departm. of Agricult. in India II 8853 (1910) p. 35 et 54, cum icon. — Sporodochiis effusis, udis, ex albo roseo-salmoneis; mycelio intra matricem parasitico, extra vero saprophytico; hyphis tenuibus, hyalinis, copiose ramosis; conidiis (microconidiis) primo ex typo Cephalosporii in conidiophoris ramulis simplicibus v. aggregatis acrogenis 1-cellularibus (v. paucicellularibus) ellipsoideis v. falcatis, coacervatis salmoneis, 5-15 × 2-4; macroconidiis ex typo Fusarii conidiophoris brevioribus suffultis, falcatis, 3-5-septatis, hyalinis, mox liberis, 15-50 × 3-5, plerumque serotinis; chlamydosporis globosis v. ovoideis, crassiuscule tunicatis, hyalinis, subinde breviter catenulatis, 5-10 µ. diam.

Hab. parasitice in radicibus Cajani indici, cui valde noxium, in India orient. — Conferenda expositio plena, imprimis chemico-biologica, ap. Auct. l. c.

16. Fusarium subnivale von Höhn., Ann. Naturhist. Hofmus. XX 8854 (1905) Heft 4, Extract. p. 6. — Sporodochiis minutissimis, sæpe confluentibus et tunc massam usque ad 300 µ. cr. et 2 mm. long. efficientibus, sæpe subiculo tenui albo ex hyphis 4 μ. cr. septatis composito insidentibus, siccis applanatis, cinnabarinis, madore incarnatis, verruciformibus; hypostromate minute parenchymatico, cellulis 3-4 µ. lat.; conidiophoris dense parallele stipatis 60 × 2, apice monosporis ibique incurvatis; conidiis hyalinis plerumque uniseptatis lunulato-falcatis utrinque acutis, 10-16 × 3, rarius duplo longioribus et tunc biseptatis.

Hab. in caulibus foliisque putrescentibus Astragali sp., Erdschias-Dagh 2700-2900 m. Anatoliæ. - Fus. minimo Fuck affine.

17. Fusarium lateritium Nees — Syll. IV, p. 694 — var. Tulasnea-8855 num Sacc., Not. Myc. VII, Ann. Myc. IV (1906) p. 274. - Sporodochiis sanguineis, confluentibus, margine breviter albo-fimbriatulis; conidiophoris repetito dichotomis; conidiis anguste fusoideis, curvulis, 40-45 > 3, ex hyalino dilute roseis, 5-7-septatis.

Hab. in cortice ramorum Robiniæ Pseudacaciæ, Clamart

pr. Paris (Tulasne, comm. Hariot). — Præcipue colore amæne sanguineo dignoscenda forma. Forte huc spectat F. Robiniæ Pass., sed ex diagnosi brevissima nil certi dici potest.

18. Fusarium Cydoniæ (Schulz.) Sacc. et Trav. — Syll. XIX, p. 724 8856 — Selenosporium Cydoniæ Schulz. v. Mügg., Verh. zool.-bot. Gesellsch. Wien 1871, pag. 1240, tab. 13, fig. 20. — Acervulis postuliformibus initio subcutaneis dein erumpentibus emersis, sordide flavis, 400-450 μ. diam.; conidiophoris brevibus cylindraceis continuis ex hypostromate compacto orientibus, conidio paullo brevioribus; conidiis fusoideis curvatis triseptatis non constrictis utrinque subrotundatis, 26-28 × 4.

Hab. in ramulis corticatis Cydoniæ vulgaris in Hungaria.
19. Fusarium pirinum (Fr.) Sacc. — Syll. IV, p. 720 — Notæ myc. 8857
VIII, Ann. Myc. vol. V (1906) p. 494, tab. X, fig. 15, Fusisporium pirinum Fr. Syst. myc. III, p. 445.

Hab. in fructu putrescente Piri communis cultæ, Champigny pr. Paris (Habiot). — Effusum, mycelio adpresso albo late cinctum, demum centro conidiophorum, roseum; hyphæ steriles ramosæ septatæ varie intertextæ, albo-hyalinæ, 4-5 µ. cr., fertiles breves et pseudobasidiis verticillatis, obclavato-fusoideis 14 × 4 terminatæ; conidia fusoidea, curvata, 3-4-septata, 33-40 × 4-5 utrinque acutiuscule tenuata, e hyalino rosea — Videtur omnino species Friesiana, etsi ab affinibus parum diversa.

20. Fusarium fissum Peyl, Beschr. einig. neuer Pilze in Lotos VIII 8858 (1858) p. 30, t. I, f. 17. — Sporodochiis verruciformibus, sparsis, sessilibus, intus brunneolis, extrorsum rubris, sed strato conidiophoro rubescente dein albo præditis, mox in fragmenta 3-6 elongata radiatim diffractis; conidiis cylindraceis, curvis, utrinque rotundatis, 3-septatis, diaphanis.

Hab. ad ramos emortuos Citri Aurantii in frigidariis in Bohemia. — Verisimiliter ab hoc non differt Fus. fractum Sacc. et Cav. — Syll. XVI p. 1100.

21. Fusarium Spicariæ-colorantis Sacc. et Trott. ex De Jonge in Rec. 8859 Trav. bot. Néerl. VI (1909) t. II, f. 9 et t. III, f. 10-13. — Conidiophoris ex mycelio Spicariæ colorantis oblongo-cylindraceis, pleurogenis, dimidium conidium non attingentibus, simplicibus, continuis v. 1-septatis, hyalinis; conidiis falciformibus, utrinque acutis, maturis sub-triseptatis, non constrictis, intus granulosis, hyalinis, 70-80 × 6.

Hab. in corticibus et ligno Theobromæ Cacao, quam una

cum *Spicaria* maxime vexat, Surinam. — Diagnosis ex iconibus deprompta.

22. Fusarium decemcellulare Brick in Jahresb. d. Vereinig. f. angew 8860 Bot. VI (1908) p. 223, cum figuris. — Conidiis longissimis 10-cellularibus.

Hab. in ramis Theobromæ Cacao, cui noxium, Kamerun Africæ.

23. Fusarium vasinfectum Atk. in Agric. Exp. Stat. Auburn Ala. 8861 Bull. 41, p. 19, cum icon. (1892). — Mycelio endogeno, conidiophora conferta, irregulariter ramosa, brevia emittente; conidiis falcatis, hyalinis, 3-5-septatis, 30-50 × 4-6.

Hab. in caulibus, quos enecat, Gossypii, Vignæ, Citrulli in Amer. bor. — Occurrit simul st. conidicus alter: Cephalosporii species: conidiis ovoideis v. ellipsoideis, rectis v. curvulis,  $4-15 \approx 2$ -6, continuis, hyalinis. — Var. Pisi van Hall in Ber. deutsch. Bot. Ges. XXI, p. 4, tab. 1 (1903). — Mycelio (culto) læte rubro, flavo-tincto; hyphis 3-6  $\mu$ . cr.; conidiis falcatis, hyalinis, 2-5-septatis, constrictis, cellulis extimis longioribus et acuminatis 50-65  $\approx$  3-5. — In caulibus Pisi sativi, cui valde noxium in Germania et Hollandia.

24. Fusarium pestis Sorauer, Ueber Stengelfäule der Kartoffeln, in 8862 (Esterr. Landw. Wochenbl. 1888, n. 32, et Atlas Pflanzenkrankh. tab. 25, fig. 1. — Mycelio corticem et medullam penetrante et in superficie caulis exspitulos candidos efformante. (Cætera ignota!).

Hab. in parte ima caulis Solani tuberosi in Germania et Belgio. — Caulis inferne nigrescit et tota planta moritur.

25. Fusarium erubescens Appel et v. Oven Thiel H. in Landwirtsch. 8863 Jahrbüch. Berl. (1905) p. 518, t. V-VI et pag. 499, f. 1. — Mycelio hyalino, septato, vario, nunc elongato, albo, nunc (in fructibus siccis ex causis meteoricis variis) roseo; sporodochiis salmoneis, erumpentibus; conidiophoris brevibus copiose ramosis; conidiis acrogenis, leniter falcatis, utrinque obtusulis v. acutis, 1-7-septatis, hyalinis, coacervatis roseis, 24-38 ≥ 3,5-6

Hab. in fructibus immaturis et maturis Solani Lycopersici. — Cfr. fusiorem descriptionem apud auct. l. c.

26. Fusarium tabacivorum Delacroix, Ann. Inst. Nat. agron. 2 ser., 8864 V (1906) p. 67, cum icon. — Mycelio ramoso, hyalino, matricem penetrante, 3 μ. diam., parce septato; conidiophoris erectis sursum simpliciter rarius iterato ramosis; ramulis sæpe verticillatoternis, cuspidatis; conidiis acrogenis elongato-fusoideis utrinque

obtuse rotundatis, leviter curvis, typice 3-septatis, non v. vix constrictis, hyalinis,  $25-35 \approx 4,5-6$ .

Hab. ad collum radicis Nicotianæ Tabaci quam vexat et putrefacit pr. Périgueux Galliæ.

27. Fusarium glæosporioides (Speg.) Sacc. et Trott., Selenosporium 8865 glæosporioides Speg., Myc. Arg. V, pag. 458, in An. Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; sporodochiis punctiformibus lenticularibus, 120-150 μ. diam., dense gregariis confluentibus subceraceis, melleis, ex hyphis tenuibus ramulosis gelatinosis mox diffluentibus efformatis; conidiis fusoideis 45-50 × 5, abrupte incurvatulis 5-septatis, ad septa non constrictis, hyalinis.

Hab. ad ramulos, frigore hiemali enecatos Pircuniæ dioicæ, Santa Catalina prope Buenos Aires Argentina Amer. austr. — E subgen. Selenosporii.

28. Fusarium vinosum Massee Brit. Fungus-flora III, p. 479 (1893). — 8866 Sporodochiis minutis, gregariis, erumpentibus, saturate vinosobrunneis sæpe denique confluentibus crustamque subgelatinosam formantibus; conidiis fusoideis, arcuatis, utrinque acuminatis, 37-40 × 4-5, quinqueseptatis, in conidiophoris opposite ramosis insertis.

Hab. in fructibus Fagi silvaticæ putrescentibus in Britannia.

29. Fusarium javanicum Koord., Botan. Untersuch. (1907) p. 247, 8867 fig. 58. — Sporodochiis effusis, superficialibus, amphigenis; hyphis sterilibus repentibus, hyalinis, septatis; conidiis acrogenis, fusoideo-falcatis v. navicularibus, hyalinis; 5-septatis, ad septa haud constrictis, 40-47 × 4,5-5,5, utrinque acutis.

Hab. in foliis putrescentibus Fici elasticæ prope Purworedjo, Loano provinc. Kedu Java nov. 1905 (Koorders). — E subgenere Eu-Fusarii.

30. Fusarium Schawrowi Speschn., Arb. Kaukas. Stat. f. Seidenzucht, 8868 X (1906) Heft 2, p. 30-41 cum icon. (rossice).

Hab. in ramis Mori in Asia minori (Schawrow).

31. Fusarium juglandinum Peck, Bull. Torr. Bot. Cl. XXXVI (1909) 8869 pag. 157. — Cæspitibus minutis, superficialibus, floccosis, subconfluentibus v. effusis, albidis, deinde colore rosaceo leviter tinctis; hyphis brevibus, gracilibus, densis, hyalinis; conidiis fusiformibus, curvatis, utrinque acuminatis, 3-7-septatis, vulgo 4-6-septatis, 30-60 × 6-8.

Hab. in ramulis emortuis Juglandis nigræ, Stockton Kansas Amer. bor. — (E. Bartholomew). — E subgen. Fusisporii.

32. Fusarium acicola Bres., in Strass. Verh. k. k. zool. bot. Ges. 8870 Wien LX (1910) p. 328. — Sporodochiis minutis, punctiformibus, erumpentibus, sparsis, rubellis v. roseo-lateritiis; conidiophoris ramosis; conidiis subfusiformibus v. subcylindraceis curvatis, 1-septatis, 35-45 × 3.

Hab. in foliis putrescentibus Abietis, Sonntagberg Austriæ.

33. Fusarium pallidulum Sacc. et Trott., Fusarium pallidum (Bon.) 8871
Sacc. et Trav. — Syll. XIX, p. 727 — non B. et C., Atractium pallidum Bonorden, Handb. p. 135, tab. 10, fig. 219. — Sporodochiis gregariis subsuperficialibus pulvinatis pallidis; conidiophoris adscendentibus, hyalinis, iterato furcatis, ramulis sursum paullo incrassatis; conidiis fusoideis subrectis, hyalinis, continuis (semper?).

Hab. in corticibus putrescentibus in Germania. — Diagnosis ex icone.

34. Fusarium heidelbergense Sacc., Ann. Mycol. VIII (1910) p. 346. — 8872 Effusum, maculicola; hyphis sterilibus prælongis, repentibus, filiformibus, 5 μ. cr., parce ramosis parceque septatis, amæne rubentibus (culturâ), intus granulosis; conidiophoris ex hyphis sterilibus hinc inde assurgentibus, fasciculatis, repetito-(5-6) dichotome ramosis, totis 50-70 × 6-7, subtoruloso-articulatis; conidiis crasse fusoideis, curvulis, utrinque oblique apiculatis, ut plurimum distincte 5-septatis, senio ad septa constrictulis, 30-42 × 7-8 e roseo hyalinis.

Hab. in foliis Cymbidii aliarumque Orchidearum exoticarum in calidariis Horti bot. Heidelberg. — Folia fungo pervasa caulesque nigro-maculantur, languescunt et forte necantur. Speciem descripsi secundum exemplaria culta in tubere solanaceo in Instituto parisiensi Pasteur a cl. G. Seliber apud prof. Etard. Præcipue conidiis proportione crassis et fortiter septatis distinguenda videtur. Subgeneri Fusisporio spectat. Cfr. supra: Cephalosporium subsessile.

35. Fusarium Heleocharidis Rostr. in Thüm., Myc. univ. 2185 (1883) 8873 (sine diagnosi).

Hab. in inflorescentiis Heleocharidis palustris in insula Fünen Dania (ROSTRUP). — Occurrit cum sclerotiis Clavicipitis nigricantis.

36. Fusarium Graminearum Schwabe, Fl. anhalt. II, p. 285 tab. VI, 8874

fig. 7. — Sporodochiis carnosis, compactis, miniatis; conidiis uniformibus, majusculis, curvulis, utrinque acutatis, plerumque 6-septatis.

Hab. in inflorescentia Graminum e. g. Psammæ arenariæ, Anhalt Germaniæ. — Forte Fus. graminum Corda huc ex

p. spectat, teste Rabenh.

37. Fusarium Secalis Fée, Mém. sur l'Ergot du Seigle in Mém. du 8875 Mus. d'Hist. nat. Strasbourg, 1843, pag. 35, t. II, f. 1 a-e. — Aurantiacum, crustaceum, inæquale, madore deliquescens; conidiis angustis prælongis, utrinque acutissimis, leviter curvis, pluriguttulato-septulatis.

Hab. ad spiculas (ovaria, glumas) Secalis cerealis in Gal-

lia et Germania.

38. Fusarium Phyllachoræ P. Henn., Ètat indép. du Congo, Mission 8876 Laurent, fasc. IV (1907) p. 363. — Sporodochiis erumpentibus, ceraceis, pulvinatis, aurantiacis; conidiis filiformibus curvatis, hyalinis, 10-15 × 0,6-0,8.

Hab. in foliis Panici sp. inter Léopoldville et Kwamouth Congo Africæ trop. — Socia adest Phyllachora heterospora.

39. Fusarium hordearium Ducomet, Rech. sur développ. Champ. pa-8877 ras. etc. Thèse, Rennes (1907) pag. 87, tab. V-VIII. — Maculis brunneis dein subalutaceis, elongatis 10-12 mm. lat.; mycelio subcuticulari; conidiophoris sparsis, hyalinis, brevissimis, 3-5 μ. long., simplicibus, curvulis, geniculatis, ad conidii insertionem incrassatis; conidiis falciformibus, acutis, hyalinis, 1-septatis, rarius 2-3-septatis, 18-24 × 3-4.

Hab. in foliis vaginisque vivis Hordei vulgaris in campo experientiæ Instituti agronomici Rennes Galliæ. — Ob conidiophora brevissima a typo generis recedit.

40. Fusarium Ioliaceum Ducomet, Ann. Ecole Nat. Agricult. Rennes 8878 t. II (1908) Extr. pag. 14, fig. 1-6. — Maculicola, mycelio initio subcuticulari, dein profundo; conidiis hyalinis, fusoideo-claviformibus, apice obtusis, basi attenuatis, rectis v. curvulis, continuis v. plerumque uniseptatis, raro biseptatis, 15-21 \* 2,5; conidiophoris ex articulis mycelicis ascendentibus, incoloribus, 4-6 \* 1,5-2.

Hab. in foliis Lolii italici, Rennes Galliæ.

41. Fusarium Paspali P. Henn., Engl. Jahrb. XXXVIII (1905) 8879 p. 129. — Acervulis ceraceis, flavo-fuscidulis fructicolis; conidiis longe fusoideo-sigmoideis, utrinque acutis, 3-septatis, hyalinis, 30-60 × 3,5-4,5; conidiophoris fasciculato-ramosis, hyalinis.

Hab. in fructibus Paspali sp., Bipindi Kamerun Africæ (Zen-KER). — A F. heterospermo diversum.

42. Fusarium Sorghi P. Henn., in Fl. du Bas- et Moy.-Congo, Ann. 8880 Mus. du Congo, vol. II, fasc. II (1907) p. 105. — Sporodochiis effusis, pallide incarnatis, subvelutinis; conidiophoris ramosis septatis, 5-7 μ. cr.; conidiis falcatis, utrinque acutis, 20-50 ≈ 5-8, 3-7-septatis, hyalinis.

Hab. in glumis Sorghi vulgaris, Kisantu Congo, Africa (VANDERYST).

43. Fusarium moniliforme Sheldon, Nebraska Agric. Exp. Stat. Rep. 8881 XVII (1904) p. 23. — A typo generis dignoscitur præsentia microconidiorum in catenulas moniliformiter dispositorum inter conidia normalia occurentium.

Hab. in caryopsidibus Zeæ Maydis, quam vexat in Amer. bor. — In mediis pluribus facile colitur.

44. Fusarium mycophytum (W. G. Sm.) Massee Brit. Fungus-flora, 8882 III, p. 483, Fusisporium mycophytum W. G. Smith, Gard. chron. (1884) pag. 245, cum icon. — Mycelio pallido v. hyalino, tenui, subinde toruloso, stratum tenue subgelatinosum formante; conidiis fusiformibus, amplissimis, curvis, 3-8-septatis, nucleatis, primo hyalinis, demum pallide brunneis v. salmoneis.

Hab. in lamellis Agaricorum viventium in Britannia.

45. Fusarium coniosporiicola P. Henn., in Fl. du Bas-et Moy.-Congo, 8888 vol. II, fasc. II (1907) p. 106. — Sporodochiis pulvinatis, ca. 0,6 μ. diam. pallide cinnabarinis; conidiophoris ramosis, hyalinis 2 μ. c. cr.; conidiis fusoideis, utrinque acutis, hyalinis, 10-12 × 2-2,5, pluriguttulatis.

Hab. in mycelio Coniosporii Albizziæ ad folia Albizziæ, Gongola Congo, Africa (VANDERYST).

46. Fusarium Ustilaginis Rostr., in Festskr. Botan. Foren. Kopen- 8884 hagen p. 137 (1890). — (Absque diagnosi).

Hab. in cæspitulis Ustilaginis grandis in Phragmite communi in Dania. — Species omnino dubia, nomen vero etiam mutandum quia extat diversum Fusarium Ustilaginis Kell. et Sw. — Syll. X, p. 728. — Sec. ic. Rostrupii (Cfr. Lind, Dan. Fungi, t. IX, fig. 118) conidia breviter fusoidea, curva, 1-septata, vix  $12 \times 3$ ; an genuini Fusarii?

47. Fusarium cirrosum v. Höhnel, Fragm. z. Mykol. Sitzb. k. Ak. 8885 d. Wiss. Wien Bd. CXVI, Abt. I (1907) p. 153. — Sporodochiis subimmersis, depressis, minutis, versiformibus; conidiophoris co-

nidio brevioribus, dense parallele stipatis, sæpius indivisis; conidiis acrogenis ut plurimum regulariter falcatis, utrinque sensim obtusuleque acutatis, maturis 3-septatis, hyalinis, coacervatis roseis,  $60\text{--}70 \approx 6.5\text{--}7$  in cirros rubros exsilientibus, cellulis binis mediis paullo brevioribus quam extimis.

Hab. in acervulis Steganosporii piriformis in cortice Aceris, Wienerwald Austriæ (v. Höhnel). — Vita parasitica in Steganosporio et cirris peculiaribus mox dignoscenda species.

48. Fusarium lichenicola (Speg.) Sacc. et Trott., Selenosporium ?li-8886 chenicola Speg., Myc. Arg. V, p. 459, in An. Mus. Nac. Buenos Aires XX (1910). — Sporodochiis primo scutelliformibus serius repandulo-difformibus sæpeque miniatis, 0,25-1 mm. diam., sessilibus; conidiophoris tenuissimis 100-200 ≈ 3-5, sursum liberis simplicibus septulatis hyalinis; conidiis cylindraceo-fusoideis 75-100 ≈ 6-9, 3-5-septatis ad septa non constrictis eguttulatis, hyalinis (an catenulatis?).

Hab. ad thallum Lichenum e.g. Candelariæ parietinæ etc. in cortice arborum viventium, La Plata Argentina Amer. austr. — E subgen. Selenosporii.

49. Fusarium Speiseri Lindau, in Rabenh. Krypt. Fl. Pilze IX p. 580 8887 (1909). — Mycelii hyphis insecti corpus implentibus, irregulariter ramosis, densis albo-floccosis, plerumque 3-4 μ. cr., intus plasmate vacuolisque præditis; sporodochiis hinc inde formatis, firmis, albis ex conidiophoris stipatis, ramosis, septatis constantibus; conidiis modo in mycelii ramis, modo in conidiophoris acrogenis, falciformibus utrinque acutis et sæpe uno apice validius arcuatis, hyalinis, 3-5-septatis, 20-31 × 3,5-4,5.

 $\it Hab$ . in corpore Cicadæ sp. pr. Karthaus in Borussia occid. (Speiser).

50. Fusarium bufonicola (Speg.) Sacc. et Trott., Selenosporium bufo-8888 nicola Speg., Myc. Arg. V, pag. 459, in An. Mus. Nac. Buenos Aires XX (1910). — Mycelio primo albo arachnoideo effuso dein farinosulo serius grumoso carneo, hyphis tenuibus ramulosis mox diffluentibus efformato; conidiis fusoideis arcuatis utrinque acutissimis 40-50 × 5-6, 5-septatis, per ætatem valide constrictis, hyalinis.

Hab. ad corpus putrescens Bufonis murini in Parque La Plata Argentina Amer. austr. — E subgen. Selenosporii.

51. Fusarium equinum Növgaard in Science XIV (1902) p. 11, Guég. 8889 Champ. paras. p. 262. — Conidiis e mycelio orientibus fusiformibus v. falciformibus (ceteris characteribus ignotis!).

Hab. in cute, quam valde vexat et depilat, equorum, Pendlaton Oregon. — Culturâ, colonias efficit circulares roseo-salmoneas.

52. Fusarium cuticola (R. Blanch.) Guéguen, Champ. paras, p. 262 8890 (1904), Selenosporium cuticola R. Blanch., in C. R. Acad. 1890, p. 479. — Mycelio hyalino, septato, ramoso, 3 μ. cr.; conidiis fusiformibus v. falcatis, 2-6-cellularibus, 25 × 2,4-4.

Hab. in dermatosi hypertrophica Lacertæ viridis et Chamaleontis vulgaris in Gallia et Africa. — Cultum, mycelium gignit quoque chlamidosporas apicales et intercalares.

- 53. Fusarium Willkommii Lindau in Rabenh. Krypt. Fl. Pilze IX, 8891 p. 551, cum icon. (1909). Ita vocandum Fusarium candidum (Willk.) Sacc. Syll. XVIII, p. 674 nec Fusarium candidum (Lk.) Sacc. Syll, IV, p. 720.
- 54. Fusarium hibernans Lindau, in Rabenh. Krypt. Fl. Pilze IX, 8892 p. 542 (1909). Ita vocandum Fusarium nivale Cesati. Syll. X, p. 726, nec Fusarium nivale (Fries) Sorauer Syll. XVIII, p. 675 (— Lanosa nivalis Fries).

### Sect. 4. Dictyosporæ.

SPOROCYSTIS Morg. — Syll. XVIII p. 676.

1. Sporocystis fulva v. Höhn., Stzb. k. Ak. d. Wiss. Wien CXVIII, 8893 Abt. I (1909) pag. 426. — Sporodochiis globosis, superficialibus, basi coarctata sessilibns, minute granulosis, fulvis 2 mm. alt., 2,5 mm. lat., subsparsis; hypostromate membranaceo subcirculari, substrato adnato, medio 1 mm. cr., globuloso, minute hyalino-celluloso, cellulis sensim radiatim in conidiophora septata 6-10 crassa productis; conidiis acrogenis, subrotundis, 40-50 μ. diam. ex articulis 5-8 globulosis v. ovoideis v. oblongis, tenui-tunicatis, 20 μ. diam., conglobatis, non ægre secedentibus conflatis, oleoso-farctis, subhyalinis.

Hab. in foliis emortuis in Horto bot., Peradeniya Ceylon.

#### Sect. 5. Scolecosporæ.

RANOJEVICIA Bubák, Ann. Myc. VIII (1910) p. 400 (Etym. a cl, N. RANOJEVIC, professore belgradensi). — Sporodochia subglobosa v. incurvata, pallida; conidiophoris cæspitosis, dichotome divisis, apice

2 pseudosterigmatibus præditis; conidiis cylindraceis, uniloculari-

bus, hyalinis.

1. Ranojevicia vagans Ranojevic et Bubák l. c. p. 401, fig. 12-14. — 8894 Sporodochiis subglobosis, elongato-incurvatis, albis, siccis flavidis, usque ad 266 μ. diam., crebre distributis, confluentibus; conidiophoris ad medium semel dichotomice divisis, apice unoquoque 2 sterigmatibus tenuibus, acutatis 5-7,5 μ. long. (raro usque ad 11,5 μ.), prædito, parce septatis, usque ad 36 × 1,5-2, hyalin-s; conidiis cylindraceis, rectis v. curvulis, 3,5-5,6 × 0,75-1, hyalinis.

Hab. in ligno Betulæ albæ nec non in ramis Berberidis

vulgaris, Belgrad Serbia.

LINODOCHIUM v. Höhn. Fragm. Mykol. (1909, VIII, p. 83 (Etym. linon pilum et dochion pro sporodochium). — Sporodochia applanata, superficialia, adnata; strato inferiori tenui minute plectenchymatico. Conidiophora stipata, brevia, verticillato-ramosa. Conidia filiformi-continua, non catenulata, acro-pleurogena, hyalina.

Linodochium hyalinum (Lib.) v. Höhn., l. c. pag. 83, Dacrymyces 8895 hyalinus Lib. — Syll. VI, p. 801 et IX, p. 260 (Synonyma cfr. ap. Höhn. l. c.). — Sporodochiis flavo-brunneolis, plagulas 1-2 mm. long. formantibus, udis 200 μ. diam.; conidiophoris 2 μ. cr.; conidiis parallele stipatis pluri-stratosis, minute guttulatis, bacillaribus, 46-64, rarius 70 × 1,3.

Hab. in acubus Pini in Belgio, Gallia, Fennia, Germania.

- VOLUTELLOPSIS Speg., Fungi Chilenses (1910) p. 197 (Etym. a Volutella cujus est analoga). Sporodochia patellari-hemisphærica, læticoloria, minuta, margine fimbriato-ciliolata. Conidia subcylindracea hyalina transverse pluriseptata, in conidiophoris unicellularibus acrogena.
- 1. Volutellopsis chilensis Speg., l. c. p. 197, cum icon. Superfi-8896 cialis laxe gregaria, sublenticularis, 150-180  $\mu$ . diam., subceracea, succinea, sessilis; conidiis utrinque obtusis, cylindraceis, leniter arcuatulis, 3-septatis, 30-36  $\approx$  5; conidiophoris conidia subæquantibus, septatis, hyalinis, cellulis sterilibus 25-30  $\approx$  4-5, processum setuliformem incurvatum 35-40  $\approx$  2-3 gerentibus circumdatis.

Hab. in caulibus emortuis Lobeliæ salicifoliæ, Cerro Alegre de Valparaiso Chile Amer. austr.

### Sect. 6. Staurosporæ.

DICRANIDION Harkn. - Svll. IV. p. 738.

1. Dicranidion ? argentinense Speg., Myc. Arg. V, p. 459, cum icon. 8897 in An. Mus. Nac. Buenos Aires XX (1910). - Sporodochiis sparsis irregulariter hemisphæricis, sessilibus, 250-500 u. diam., albis. ceraceis, pruinulosis; hyphis continuis. 200 × 2-3, sursum liberis fusoideo-incrassatulis, minute rugulosis v. denticulatis: conidiophoris filiformibus fasciculatis: conidiis trimeris, cellula basali obovata minore, 5-6 × 3, cellulis superis parallelis, 10-12 × 3-4, primo continuis dein medio 1-septatis.

Hab. ad faciem internam corticis delapsæ Eucalypti globuli in Parque La Plata Argentina Amer. austr.

ARANEOMYCES v. Höhn, Fragm. Mykol. VII (1909) p. 82 (Etym. aranea et myces ob formam conidiorum). — Sporodochia superficialia, applanata, laxa, pallida, ceraceo-carnosula, contextu basi parenchymatico, supra prosenchymatico. Conidiophora simplicia. apice sporigera. Conidia solitaria cylindracea, bicellularia, hyalina, ad septum utrinque lateraliter appendicem semilunarem gerentia.

1. Araneomyces acarifer v. Höhn, l. c. p. 82, f. 3. — Sporodochiis 8898 cerino-flavis, applanatis, 500-700 µ. lat., 150-250 µ. alt.; conidiophoris parallelis, 20 × 2; conidiis hyalinis cylindraceis, utrinque obtusis 12 × 2,5; appendicibus semilunato-falcatis conidium superantibus, nempe 12-18 × 1,5, formam substellatam conidio præbentibus.

Hab. in Rosellinia Miconia, verisimiliter statum conidiophorum Paranectrice juruance exhibens, ad folia Miconiæ sp. Rio Juruá Brasiliæ (ULE).

#### TUBERCULARIEÆ DEMATIEÆ.

### Sect. 1. Amerosporæ.

EPICOCCUM Link - Syll. IV p. 736, X p. 732, XI p. 654, XIV p. 1129, XVI p. 1104, XVIII p. 679.

- 1. Epicoccum diversisporum Preuss Syll. IV p. 741, X p. 732 8899 var. Pseudoplatani Allesch. in Hedwigia XXXIV, p. 290 (1895).
  - Maculis rubris; sporodochiis globosis, atro-purpureis; conidiis Syll. fung. XXII (VII-1913)

magnitudine ludibundis 7-20 µ. diam., verrucosis, tetrahædrò-globosis v. sphæricis, non reticulatis.

Hab. in ramis decorticatis Aceris Pseudoplatani pr. Mün-

chen Bavariæ (SCHNABL).

2. Epicoccum javanicum Koord., Botan. Untersuch. (1907) p. 249, 8900 fig. 60. — Sporodochiis convexis, plectenchymaticis, hypophyllis, 50-60 μ. diam., fuligineis; conidiis in conidiophororum simplicium (fuscescentium) dense fasciculatorum apice acrogenis, oblongis v. globoso-oblongis, continuis v. 7-septatis v. murali-divisis 14-16 × 12-13, fuscis, exosporio minute areolato, conidiophoris brevibus 8 × 4.

Hab. in foliis vivis Fici quercifoliæ, Purworedjo prov. Java (Koorders).

3. Epicoccum hyalopes I. Miyake, Pilze Reispflanze Japan Journ. 8901 College Agricult. Tokyo, II (1910) p. 264, t. XIV, fig. 73. — Sporodochiis nigris, globosis 75 μ. diam.; conidiophoris hyalinis; conidiis levibus, nigris, globosis v. ellipsoideis 14-18 × 13-15.

Hab. in glumis Oryzæ sativæ, Soma Japoniæ.

4. Epicoccum torquens Messee, Torreya VI (1906) p. 46-50, f. 1-5. 8902 — Sporodochiis sæpius circularibus, convexis, solitariis, v. subconfluentibus, 350 μ. diam., brunneolis; conidiis globosis, sessilibus, 1-cellularibus, brunneis, minute verrucosis, 15-20 μ. diam.; conidiophoris parce ramosis, septatis, ex hypostromatis compacti cellulis periphericis orientibus.

Hab. parasitice in capsulis Weisiæ viridulæ, quæ inde torquentur, Thomasville in Georgia. — Ab. affini E. scabro dignoscitur conidiis continuis, sporodochii cellulis polygoniis, majoribus, conidiophoris ramosis, septatis, vitaque parasitica.

### SPILOMIUM Nyl. - Syll. XVIII p. 678.

Spilomium pertusaricola Nyl. Enum. géner. des Lichens in Mém. 8903 de la Soc. imp. des scienc. de Cherboourg V (1857) p. 91 (extr.).
 — Habitu Sphinctrinæ microcephalæ; distinguitur conidiis oblongis, nigricantibus, 4-5 × 2,5-3.

Hab. in Pertusaria in Gallia.

MELANOBASIDIUM Maubl., Bull. Soc. Mycol. France XXII (1906)
p. 69. (Etym. a melas melanos niger et basidium). — Foliicola, maculicola; sporodochia minima, erumpentia, atra, ex hyphis ramosis, septatis, intricatis composita; conidiophora cylindracea,

densa, septata, concoloria; conidia solitaria, acrogena, ovoidea, hyalina.

Melanobasidium Mali Maubl. l. c. p. 70. — Maculis albidis ovatis, 8904
 v. elongatis, margine brunneo, angusto cinctis; sporodochiis punctiformibus, epiphyllis demum epidermide fissa superficialibus, 170-190 μ. latis; conidiis ovoideis, hyalinis 4,5-5,5 × 2,5-3.

Hab. in foliis vivis Piri Mali prope Sevillam Hispaniæ.

**HYMENOPSIS** Sacc. — Syll. IV p. 744, X p. 735, XVI p. 1105, XVIII p. 682.

Hymenopsis Elasticæ Kcord., Botan. Untersuch. (1907) p. 249, 8905 fig. 59. — Sporodochiis scutellato-disciformibus, erumpenti-superficialibus, corticolis, atris, sparsis, 0,5-1 mm. diam., glabris, conidiophoris filiformibus, subsimplicibus; conidiis acrogenis, solitariis, continuis, oblongis, utrinque obtusis v. rotundatis, 4-5 ≥ 2,5, fumigatis.

Hab. in cortice Fici elasticæ, Kaliwiro prov. Kedu, Java (Koorders).

2. Hymenopsis paraensis Syd. Hedwigia XLIX (1909) p. 84. — Sposodochiis amphigenis, inæqualiter distributis, plerumque rotundatis, convexulis,  $^{1}/_{3}$ - $^{1}/_{2}$  mm. diam., superficialibus, aterrimis, calvis; basidiis dense fasciculatis, elongato-clavatis, hyalino-murinis, ca.  $20 \times 1$ - $1^{1}/_{2}$ ; conidiis ellipsoideis vel fusoideis, utrinque plerumque attenuatis, continuis, olivaceis, eguttulatis, 5-8 × 2-3.

Hab. in foliis emortuis Philodendri, Para America austr. (C. F. BAKER).

3. Hymenopsis hydrophila Saccardo, New York, Journ. of Myc. v. 8907 XIII (1907) p. 47. — Sporodochiis laxe gregariis, longitrorsum oblongis, 400-450 × 200 opace nigris, glabris, compactiusculis, subexcavato-hysterioideis, erumpenti-superficialibus; conidiis fusiformibus, rectis v. leviter inæquilateris, 16 × 4-4,2, intense olivaceis, obsolete, guttulatis, utrinque acutiusculis conidiophoris dense fasciculatis, filiformibus, sursum incrassatulis, hyalino-viridulis, 20-20 × 2 apice truncatulis et subinde fimbriatulis.

Hab. in foliis emortuis Typhæ latifoliæ, Lyndonville, N. Y., Amer. bor. (Dr. C. E. FAIRMAN). — Species peculiaris, ab H. Typhæ (Fuck.) Sacc. omnino diversa. Conidia mutica, sed a conidiophoris liberata hine v. utrinque massulum mucosam emittere videntur.

**EPIDOCHIUM** Fr. — Syll. IV p. 747, X p. 735, XVIII p. 683.

1. Epidochium Oryzæ I. Miyake Reispfl. Japan, Journ. College 8908 Agricult. (1910) II p. 264, t. XIV, f. 74-75. — Sporodochiis superficialibus, verruciformibus, hemisphæricis v. irregularibus 160-240 μ. diam., olivaceis; conidiophoris 20-25 × 2; conidiis solitariis, fusoideis, biguttulatis, 9-12 × 2,5-3,5.

Hab. in foliis Oryzæ sativæ, Japonia. — Species verisimiliter saprophytica, videretur Chætostroma atrum demptis setulis.

#### ACTINOMMA Sacc. - Syll. IV p. 753.

1. Actinomma subtropicum Speg., Myc. Argent. V, p. 461, in An. 8909 Mus. Mus. Nac. Buenos Aires XX (1910). — Sporodochiis sæpius hypophyllis sparsis v. hinc inde laxe gregariis superficialibus, 300-350 μ. diam., undique ex hyphis olivascentibus subfasciculatis radiatim hirsutis intus carnosulis et subflavidis; hyphis fasciculatis sursum liberis subtorulosis, fumosis, in conidia sensin transeuntibus; conidiis cylindraceis utrinque obtusissime rotundatis, subcatenulatis, 5-10 × 3,5, continuis eguttulatis, levibus, fumosis.

Hab. ad folia viva Lauracearum in Silva Bobadal Jujuy gentina Amer. austr.

## SPHÆROMYCES Mont. — Syll. IV p. 753.

1. Sphæromyces maticola Speg., Ann. Mus. Nac. Buenos Aires, 8910 t. XVII (1908) p. 141. — Maculis nullis; sporodochiis primo hemisphæricis dein orbiculari-depressis, erumpentibus v. superficialibus, in vivo carnosulis, in sieco subcarbonaceis, ex hyphis apice gelatinoso-deliquescentibus, efformatis; conidiophoris clavulatis, 20 ≈ 2, chlorinulis, deorsum attenuatis fasciculato-coalescentibus, sursum in catenulas sporarum mucoso-vaginatarum productis; conidiis e globoso subcuboideis tunica mucosa non v. vix perspicua obvolutis chlorinulis (2 μ. diam.) eguttulatis.

Hab. vulgatum ad ramos dejectos putrescentes Ilicis paraguariensis, ubique Misiones Rep. Argentina.

2. Sphæromyces patagonicus Speg. Myc, Argent. V, p. 455, in An. 8911 Mus. Nac. Buenos Aires XX (1910). — Sporodochiis sparsis v. pauci-gregariis et subseriatis erumpentibus subglobosis, compactiusculis, 120-250 μ. diam., atris; hyphis basi breviter coalescentibus sursum liberis 100-200 × 8-10, fuligineis toruloso-articulatis ac sensim in conidia transeuntibus; conidiis catenulatis, subcylin-

draceis, utrinque obtuse rotundatis 10-16 × 5-6, pulchre fuligineis levibus sæpe obsolete biguttulatis.

Hab. ad culmos aridos putrescentesque Stipæ speciosæ in rupestribus Carrenleofú Patagonia Argentina Amer. austr.

MYROTHECIUM Tode — Syll. IV p. 750, X p. 737, XI p. 655, XIV p. 1129.

1. Myrothecium advena Sacc., Ann. Mycol. VI (1908) pag. 560, 8912 tab. XXIV, fig. 10.— Sporodochiis hypophyllis, gregariis, superficialibus, pulvinatis, 200-250 μ. diam., campactiusculis, nigris sed hyphulis candidis radiantibus cinctis, hinc bicoloribus, ambitu orbicularibus v. subreniformibus; conidiis cylindraceis rectis, curvulisve, utrinque rotundatis, 5,5-6,5 × 2, dilutissime chlorinis, utrinque obsolete 1-guttulatis; conidiophoris fasciculatis bacillaribus, modo simplicibus, modo nonnullis e trunculo communi orientibus, 16-18 × 1,5 dilutissime chlorinis.

Hab. in foliis subvivis Coffee arabice in calidariis, Cherbourg (P. Hariot). — Sporodochia in areis fere arescentibus nascuntur.

MYROTHECIELLA Speg. Arg. V, p. 460, in An. Mus. Nac. Buenos Aires XX (1909). (Etym. *Myrothecium*, cujus est analogum genus). Est *Myrothecium* conidiis catenulatis donatum.

1. Myrotheciella catenuligera Speg., l. c. p. 460 cum icon. — Spo-8913 rodochiis scutelliformibus, 0,5-2 mm. diam., olivaceis, albo-marginatis; conidiophoris continuis simplicibus sæpius supra medium bifidis apice obtusis, 30 × 2, fumosis; conidiis cylindraceis catenulatis, utrinque subtruncatis, 8-12 × 3, sæpe minute guttulatis primo hyalinis dein chlorinulis.

Hab. in caulibus putrescentibus Lycopersici esculenti La Plata Argentina Amer. austr.

CHÆTOSTROMA Corda — Syll. IV, p. 749, X p. 736, XI 655, XIV p. 1130, XVIII p. 683.

1. Chætostroma pircuniicola Speg. Myc. Arg. V, p. 462, in An. 8914 Mus. Nac. Buenos Aires XX (1910) — Acervulis sæpius macula suborbiculari, 5-10 mm., pallida indeterminata insidentibus, erumpentibus laxe gregariis numerosis, sublenticularibus 75-150 μ. diam. atro-ferrugineis; setulis plus minusve numerosis sæpius centralibus, rectis v. vix subflexuosis, simplicibus 100-150 × 4-5,

sursum attenuatis acutatis, obscure pluriseptatis nigris subopacis; conidiophoris cylindraceis fasciculatis erectis simplicibus hyalinis  $10-12 \times 1.5-2$ ; conidiis (catenulatis?) subcylindraceis deorsum sæpe subattenuatis,  $14-16 \times 4-5$ , non v. grosse biguttulatis, levibus, subchlorinis.

Hab. vulgatum ad folia dejecta subputrescentia Pircuniæ (Phytolaccæ) dioicæ in Horto bot. La Plata Argentina Amer. austr.

2. Chætostroma microspermum Speg., Myc. Arg. V, p. 461, in An. 8915 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis; sporodochiis globoso-lenticularibus, 150-180  $\mu$ . diam., nigris, superficialibus sparsis, setulis laxis rectiusculis simplicibus acutis, 150-200  $\approx$  5-6, subopace olivaceis adspersis; conidiis cylindraceis, utrinque subacutiuscule rotundatis, 5-6  $\approx$  1,75-2, eguttulatis levibus obscure olivaceis; conidiophoris bacillaribus, 10-15  $\approx$  1, dense constipatis, subhyalinis.

Hab. ad folia arida Tillandsiæ cujusdam in silvis circa Bompland Misiones Argentina Amer. austr.

3. Chætostroma graminellum Speg., Myc. Arg. V, pag. 461, in An. 8916 Mus. Nac. Buenos Aires XX (1910). — Sporodochiis atris erumpentibus irregulariter suglobosis, 120-250 μ. diam., laxe minuteque setulosis, setulis fuligineis patentiusculis, 50-100 × 2-3; conidiophoris hyalinis sursum liberis, bifidis v. capitato-denticulatis; conidiis acrogenis solitariis, breviter fusoideis, 12 × 2,5, primo hyalinis dein chlorinis.

Hab. ad culmos emortuos Boutelouæ ciliatæ circa San Luis Argentina Amer. austr.

### Sect. 2. Didymosporæ.

- ERYSIPHOPSIS Speg., Myc. V, p. 462, in An. Mus. Nac. Buenos Aires XX (1910). (Etym. Erysiphe et opsis facies). Sporodochia globosa, atra, subiculo radiante hyalino insidentia; conidia didyma chlorina.
- Erysiphopsis myrothecioides Speg., l. c. p. 463 cum icon. Spo-8917 rodochiis sparsis v. hinc inde pauci-gregariis epiphyllis atris minutis 150-200 μ. diam., compactiusculis, subiculo candido ex hyphis tenuibus, 20-30 × 1, breviuscule ramulosis subcontinuis suffultis; conidiis elongato-ellipsoideis utrinque rotundatis, 16-18 × 6-7, medio uniseptatis sæpe constrictulis eguttulatisque.

Hab. ad folia viva Jacaranda cuspidifolia in Tucuman Argentina Amer. austr. - Subiculum Erysiphem quamdam eximie simulans.

### Sect. 3. Phæophragmiæ.

EXOSPORIUM Link — Syll. IV p. 755, X p. 738, XI p. 656, XVI p. 1106, XVIII p. 686.

1. Exosporium Meliloti Trav. in Bull. n. 8 Société Flore Valdôtaine, 8918 pag. 31 extr. (1912). — Sporodochiis sparsis vel gregariis confluentibusque, innato-superficialibus, subhemispæricis, 200-400 µ. diam., olivaceo-atris; velutinis, intus pseudoparenchimatice contextis, pallide luteo-fulvis vel subhyalinis; conidiophoris erectis. sinuosis, rarius subrigidis, olivaceo-flavis, continuis vel prope basim parce septatis, apicem versus sinuoso-nodulosis et pallidioribus, 45-60 × 6-7; conidiis acro-pleurogenis, initio continuis limoniformibus, demum cylindraceo-ellipsoideis, apice rotundatis, basi constricto-truncatis, transverse 1-3-septatis, non constrictis, flavis, 18-27 × 6-8, episporio distincte granuloso-asperulo.

Hab. in caulibus emortuis adhuc stantibus Meliloti albæ, prope Valpelline, Valle d'Aosta, Ital. bor., alt. 950 metr. — Pulchra species, fructificatione Heterosporio similis, sed ob conidiophora e sporodochio stromatico rite evoluto orientia ad hoc genus adscribenda. Ad subgen. Trachysporium referenda.

2. Exosporium laricinum Massee Journ. Board Agricult. Sept. (1902) 8919 et Diseases cult. Plants (1910) p. 480, f. 143. - Sporodochiis parasiticis minutis, punctiformibus, nigris, gregariis; stromate subcirculari, sæpe centro depresso, fere peziziformi, parenchymatico; conidiis subsessilibus, fusiformibus, utrinque acutis, sæpius curvulis, 5-7-septatis non constrictis, subolivaceis, 25-30 × 6-7; conidiophoris brevibus teretibus, 1-septatis, concoloribus.

Hab. in cortice ramulorum Laricis europææ in Britannia. - Corticem rimosum neddit et vexat. Non raro e medio v. ex

apice conidiorum conidia secundaria generantur.

3. ? Exosporium Lauri Hazsl., Magyar Discom. p. 187, tab. 4, flg. 5. 8920 - Sporodochiis compactis, brunneo-atris; conidiis fusoideis 8-14septatis, fuligineis, strato mucoso hyalino obvolutis, apice rotundatis, deorsum hyalinis stipitiformi-tenuatis, majusculis.

Hab. in truncis Lauri nobilis, Fiume. - Dubia stirps.

ACROTHECIELLA Koord., Botan. Untersuch. Java (1907) p. 250. (Etym. Acrothecio cujus analogum genus). — Sporodochia verruciformia, phyllogena, superficialia, pulvinata contextu plectenchymatico fuligineo. Hyphæ fertiles erectæ, olivaceæ, pluriseptatæ, filiformes, simplices v. apice divisæ, ex sporodochio undique irradiantes. Conidia solitaria, acrogena et pleurogena, olivacea, biseptata curvata v. curvulata, appendicibus destituita, loculo medio maximo obscure olivaceo, loculis 2 extimis pallide olivaceis, rarius 3-septata.

1. Acrotheciella javanica Koord. l. c. p. 251, fig. 61. — Sporodo- 8921 chiis fuligineis, minimis,  $100 \mu$ . diam., hyphis fertilibus  $250-400 \times 10$ , conidiis  $20-22.5 \times 10-10.5$ .

Hab. in foliis vivis et emortuis Fici elasticæ prope Loano et Penunggalan prov, Kedu ins. Java (Koorders).

TRIMMATOSTROMA Corda — Syll. IV p. 757, XIV p. 1131, XVI p. 1107, XVIII p. 688.

Trimmatostroma Liriodendri Atkins., Ann. Mycol. VI (1908) p. 60. 8922
 — Maculis magnis, 1-3 cm. latis, atris, margine irregulari; sporodochiis hypophyllis, raro concentricis, applanatis, 200-500 μ. latis; conidiophoris dense compactis, brevibus, hyalinis; conidiis oblongis, raro trigonis, 1-4-pluriseptatis, raro longitudinaliter septatis, 12-20 × 5-7.

Hab. in foliis languidis Liriodendri Tulipiferæ, Mt. Mitchell, Block Mts. N. Carolina America bor.

- WISNERIOMYCES Koord., Botan. Untersuch. Java (1907) p. 246. Sporodochia pulvinata, sessilia v. rarius basi coarctata et stipitata, fusca, subfragilia, non gelatinosa, amphigena, plerumque hypophylla, superficialia, basi setis numerosis curvatis, fuligineis, septatis erectis ornata. Conidiophora brevissima, cylindracea, simplicia, hyalina. Conidia cylindracea, hyalina, curvata, levia, 3-8-septata, mox in articulos cylindraceos, truncatos 4-9 secedentia, in capitulum laxe aggregata.
- Wisneriomyces javanicus Koord. l. c. p. 246, fig. 57. Sporo-8928 dochiis basi setis 150-170 × 5 ornatis; hyphis sterilibus repentibus v. endophyllis setis maximis numerosissimis, sparsis, 350-500 μ. longis, obscure fuligineis, rectis v. curvatis, acutissimis, septatis, basi dilatatis; conidiis 50-80 × 3,5-4,5 in articulos 10-12 × 3,5-4,5 secedentibus.

Hab. in foliis emortuis Fici elasticæ prope Penunggalam prov. Kedu, Java (Koorders).

### Sect. 4. Phæodictyæ.

**SPEGAZZINIA** Sacc. — Syll. IV p. 758, X p. 739, XIV p. 1131, XVIII p. 689.

Spegazzinia Coffeæ P. Henn., Mission E. Laurent, fasc. III (1906) 8924
 p. 318. — Sporodochiis atris effusis in mycelio Meliolæ parasiticis, amphigenis; conidiophoris filiformibus, hyalino-fuscidulis, c. 2
 μ. cr., septatis; conidiis 3-5 composito-sarciniformibus 14-22
 μ. diam., cellulis subglobosis, dense verrucosis, atris, 8-13

Hab. in foliis Coffee in mycelio Dimerosporii v. Meliolæ, Ubangi Africa trop.

MYRIOPHYSELLA Speg., Fungi Chilenses (1910) p. 198. (Etym. myria numerus copiosus et physa vesica). — Sporodochia subglobosa subglatinosa, olivacea, parenchymatico-cellulosa; conidia peripherica subglobosa, olivacea, parenchymatico-cellulosa.

Myriophysella chilensis Speg., l. c. p. 198, cum icon. — Sporo-8925 dochiis habitu magnitudineque sat ludentibus, subglobosis, 80-1500 μ. diam.; conidiis subglobosis 20-30 μ. diam. olivaceis e cellulis etiam globosis, 4-6 μ. diam., olivaceis, grosse 1-nucleatis efformatis.

Hab. frequens in foliis vivis et emortuis Boldoæ fragrantis, Lithreæ causticæ, Aetoxici punctati, Lota, Talcahuano, Concepción, Valparaiso, Chile Amer. austr.

CEREBELLA Ces. — Syll. IV p. 761, VII p. 523, IX p. 290, XI p. 237, XVI p. 1107.

1. Gerebella Anthistiriæ Petch, Ann. R. Bot. Gard. Peradeniya v. 8926 IV, Pt. V (1909) p. 307. — Hypostromate circ. 6 mm. long., 3 mm. lat., depressiusculo, superficie transverse cerebriformi-convoluta, atro-olivaceo, dein nigro; conidiis 3-7 in sphærulas plus v. minus globosas connexis, ad septa constrictis, 14-20 μ. diam., pedicello brevi crassiusculo hyalino præditis; conidiis sepositis tetrahedricis basi rotundatis, 8-12 μ. diam., olivaceis, levibus.

Hab. in inflorescentia Anthistiriæ imberbis, Peradeniya, Ceylon.

### Sect. 5. Staurosporæ.

- CHELISPORIUM Speg., Myc. Arg. V, p. 463, in An. Mus. Nac. Buenos Aires XX (1910). (Etym. chele forceps, chela et spora). Sporodochia erumpentia, coriacella; conidia cheliformia, cellula basali simplici, superioribus parallelis sæpius plurilocularibus. Est Dicranidion dematieum.
- 1. Chelisporium hysterioides Speg., l. c. p. 463 cum icon. Sporodochiis gregariis elliptico-linearibus, 0.5-1 mm. long. 200-250  $\mu$ . diam., erumpentibus pruinulosis; conidiis dense constipatis, subellipsoideis, 5-15  $\approx$  8, fumosis, cellula basali breviter lateque ovata, ramulis superis 2-3-cellularibus arcuatulis, altero crassiore, altero angustiore.

Hab. ad palos, cortice orbatos, diu intemperiis expositos, Eucalypti globuli, in Parque La Plata Argentina Amer. austr.

- FUMAGOPSIS Speg. Myc. Arg. V, p. 465, in An. Mus. Nac. Buenos Aires XX (1910). (Etym. Fumago, cujus habet faciem). Biophila, phyllogena, subiculo fumagineo atro; sporodochiis punctiformibus setulosis, conidiis triradiatis hyalinis.
- 1. Fumagopsis triglificides Speg., l. c. p. 465 cum. icon. Subiculo 8928 tenuissimo submembranaceo effuso adnato; sporodochiis subhemisphæricis, 100-200 μ. diam., compactiusculis, setulis paucis patentiusculis rectis 100-200 × 3,5-5, subopace fuligineis ornatis; conidiophoris filiformibus 20-30 × 1,5-2, rectis fasciculatis, hyalinis; conidiis triradiatis cellula basali (seu stipite) cylindracea sæpius uniloculari, 10-15 × 3, radiis acutiusculis patentiusculis arcuatulis, 2-3-septatis, 20-30 × 2-2,5, ad septa leniter constrictulis.

Hab. ad folia viva Lucumæ neriifoliæ, insula Santiago prope La Plata Argentina Amer. austr.

# MYCELIA STERILIA.

SCLEROTIUM Tode — Syll. XIV p. 1139, XVI p. 1108, XVIII p. 690.

Sclerotium ramulicola Speg., Myc. Arg. V, p. 467, in An. Mus. 8929
 Nac. Buenos Aires XX (1910). — Sclerotiis subglobosis, 90-100
 μ. diam., glabris, nigris, astomis, primo nucleo minute denseque parenchymatico subhyalino farctis, serius vacuis, parietibus carnosocoriaceis, contextu dense subimperspicueque parenchymatico fuscolateritio.

Hab. ad ramulos vivos Loganiaceæ in silvis prope Campo Chico Jujuy Argentina Amer. austr. — Ramuli infecti incrassatuli torulosi e gemmulis in soros subhemisphæricos (1-2 mm. d.) atros verruculosos duriusculos transformatis. Species formam sterilem Montagnellæ cujusdam sistens.

2. Sclerotium Pseudoerysiphe Speg., Myc. Arg. V. p. 467, in Anal. 8980 Mus. Nac. Buenos Aires XX (1910). — Maculis nullis v. vix manifestis; subiculo hypophyllo candido, araneoso, tenui ex hyphis gracillimis, 1,5-2 μ. cr., repentibus arctiuscule adnatis septulatis v. guttulatis hyalinis efformato; sclerotiis superficialibus laxe gregariis, glabris, levibus subglobosis, 40-80 μ. diam., melleis intus gelatinosis hyalinis, tunica tenui minute parenchymatica vestitis.

Hab. ad folia viva Trixis frutescentis in sepibus prope Tucumán Argentina Amer. austr

3. Sclerotium aschersonioides Speg., Myc. Arg. V, p. 466, in Anal. 8981 Mus. Nac. Buenos Aires XX (1910). — Acervulis hemisphæricodepressis, 2-3 mm. diam., superficialibus, matrici arcte adnatis, pallide aurantiacis, extus gossypinulis intus compactis aurantiacis; subiculo membranaceo tenuissimo parum perspicuo e globulis, 200-250 μ. diam., apice subostiolatis dense constipatis ex hyphis tenuibus 4-5 μ. cr. flexuosis continuis efformatis constituto.

Hab. ad hypophyllum foliorum viventium Myrtaceæ cujusdam in silvis prope Puerto León Misiones Argentina Amer austr.
— Certe statum juvenilem v. inevolutum Aschersoniæ cujusdam sistens.

4. Sclerotium clavus DC. — Syll. XIV, p. 1151 — fm. andropogonicola 8932 Speg., Myc. Arg. V, p. 466, in An. Mus. Nac. Buenos Aires XX (1910). — Sclerotiis e cylindraceo subfusoideis utrinque obtusiusculis, 5-7 mm. long., 1-1,5 mm. cr., extus plumbeis intus corneis albis.

Hab. ad ovaria Andropogonis nutantis in Colonia Juárez Celman, Córdoba Argentina Amer. austr.

5. Sclerotium oicophilum Speg., Myc. Arg. V, p. 466, in An. Mus. 8933 Nac. Buenos Aires XX (1910). — Globosum, breviter pedicellatum, in vivo leve, 400-750 μ. diam., plumbeum, nitidum, durum, siccum subcarnosulum corrugatum, intus grosse selerenchymaticum albo hyalinum, cellulis e globoso obtuse angulatis, 20-24 × 15-20, refringentissimis; mycelio rhizomorphoideo e fibris candidis, 80-120 μ. diam. dense ramulosis subteretibus tenacellis efformato.

Hab. abunde ad trabes fabrefactas putrescentes in habitationibus La Plata Argentina Amer. austr.

6. Sclerotium Erythrinæ Peyl, Lotos VII (1857) pag. 29, fig. 7. — 8934 Syll. XIV, p. 1174 (nomen). — Adnatum, versiforme, minutum fere punctiforme v. ellipticum, reniforme, usque ad 3,5 cm. extensum, sed vix 5 mm., depressum, primo albidum subsebaceum, demum induratum, superficiale, infra nigrum intus album, superficie longitrorsum striatum et medio hysteriiformiter fissum.

Hab. in stolonibus emortuis Erythrinæ laurifoliæ in calidariis in Bohemia (Peyl).

7. Sclerotium Tini Sacc., in Annal. Mycol. X (1912) p. 322. — Laxe 8935 gregarium, phyllogenum, utrinque conspicuum, disciforme, regulare, nigrum, leve, 1 mm. latum, superne convexulum nitidulum, inferne planum opacum, intus pallidum, compactiusculum e cellulis sinuose ovoideis 5-7 μ. diam., subhyalinis formatum.

Hab. in foliis emortuis dejectis Viburni Tini, Villa del Papa, Castel Gandolfo pr. Romam (D. SACCARDO). — Cum Phacidio Tini Duby (Moug. et Nestl. Stirp. Voges. n. 1181) quoque sterili, comparavi sed omnino differt.

8. Sclerotium Rolfsii Sacc., in Ann. Mycol. IX (1911) pag. 257. — 8986 Superficiale, subrotundum v. horizontaliter ellipsoideum, 0,5-0,8 mm. diam., facile secedens, levigatum, nitidulum, roseum, demum fulvescenti-brunneum, carnoso-firmulum, intus pallidum; cellulis e globoso polyhedricis 6-8 μ. diam. interdum sinuosis, subhyalinis, peripherice brunneolis; fructificatione nulla observata.

Hab. in caulibus plantarum plurimarum, nempe in Solano

tuberoso, Lycopersico, Melongena, Piso, Cucumeribus, Chrysanthemis, Capsico, Rheo, Faba, Batata, Citrullo, Beta, Arachide, Viola, Brassica, Amaranto, Hydrangea, Desmodio, Erigeronte, Erechtite, Ambrosia, Ficu Legit in Florida prof. P. A. Rolfs, communicavit, Aug. 1910, prof. F. Stevens. — Species parasitica et tunc noxia; legitur tamen interdum saprophytica.

9. Sclerotium Allii Rivolta, Parassiti veget. p. 544, t. 3, f. 41 (1873) 8987 (in textu ex errore sub *Rhizoctonia*). — Globulosum, seminis papaveris magnitudine, ex fibrillis areolatim anastomosantibus, reticulum fere formantibus, splendentibus compositum.

Hab. in collo bulborum Allii sativi in Etruria (GHIGNOLA).

- Plantulæ affectæ flavescunt, arescunt et intra 4-6 dies pereunt.
- Videtur species diversa a Scl. ambiguo et Scl. cepivoro.
- 10. Sclerotium granulatum Peyl, Lotos VII (1857) pag. 67, tab. II, 8938 fig. 12 Syll. XIV, p. 1174 (nomen). Adnatum, primo albidum, dein e brunneo in nigrum abiens, intus album, initio depressum dein expansum, subglobosum et tunc partim areolatim diffractum, postremo in crustam granulosam, intus lacunosam confluens.

Hab. inter squamas bulborum Allii Cepæ in Bohemia (Peyl).

11. Sclerotium ambiguum Dub. — Syll. XIV, p. 1150 — var. Nar- 8939 cissi Sacc., Ann. Myc. VIII (1910) p. 347. — Tuberculis adnatis, gregariis applanatis, 0,7 mm. d., ambitu suborbiculari, nigris, demum nitidulis, levibus v. rugulosis, margine tenuiter elevato et tunc patellarioideis.

Hab. in squamis, demum emorientibus, bulborum Narcissi sp. Palermo Siciliæ (J. H. MATTEI).

12. Sclerotium irregulare I. Miyake, Pilze Reispfl. Japan, Journ. 8940 College Agricult. II (1910) pag. 265. — Tuberculis irregulariter globosis, ovoideis, ellipsoideis v. linearibus, brunneo-fuligineis, intus nigris, supra convexis infra concavis, magnitudine variabilibus 1-6 mm. long., 1-3 mm. cr.

Hab. in vaginis Oryzæ sativæ Japonia. — A Scl. Oryzæ differt magnitudine diversa et a Scl. glumali colore intus nigro.

Sclerotium Selaginellæ Peyl, Lotos VII (1857) pag. 68, tab. II, 8941 fig. 14 — Syll. XIV, p. 1174 (nomen). — Innatum, conchiforme v. naviculare, minutissime rugulosum, intus album.

Hab. in caule v. foliis Selaginellæ sp. in calidariis in Bohemia (Peyl).

14. Sclerotium stipitatum Berk. et Curr., in Curr. et Hanb., Trans. 8942 Linn. Soc. London XXIII (1860) p. 92 et 93, tab. 9, fig. 1-4. — Versiforme, ellipsoideo-subglobosum, stipitato-apiculatum v. subrostratum, nigrum, firmum, 1-2,5 cm. lat., superficie nigricans, glabrum sed subreticulatum, contextu interiore ex cellulis maxime irregularibus, cylindraceis intricato-ramosis, sæpe hinc inde inflatis, hyalinis.

Hab. ad terram, Travancore Sinarum.

15. Sclerotium Libertianum Lindau, in Rabenh. Krypt. Fl. Pilze IX, 8943 pag. 823 (1910). — Ita vocandum Apiosporium Brassicæ (Lib.) Fuck. — Syll. I, p. 33 et in Malp. I (1887) p. 457, Perisporium Brassicæ Lib. Crypt. Ard n. 280, non Sclerotium Brassicæ Pers. — Cellulæ interiores globoso-angulosæ, crasse tunicatæ 12-14 µ. d.

16. Sclerotium umbilicatulum Lindau, in Rabenh. Krypt. Fl. Pilze IX, 8944
p. 670. — Ita vocandum Scler. umbilicatum Rob. ap. Desm. (1845)
— Syll. XIV, p. 1160 — non Scl. umbilicatum Lasch, 1844 —
Syll. XIV p. 1145.

CUTICULARIA Ducomet, Rech. sur le développ. de quelques champignons parasites à thalle subcuticulaire, Thèse Fac. Sc. Paris (1907) p. 235, tab. XXXIV (Etym. cuticula ob mycelium subcuticulare). — Maculiformis, non stromatica, mycelio subcuticulari. — Generi Ectostromati proximum sed characteribus macularum diversum.

1. Cuticularia llicis Ducomet, l. c. Characteres generis.

Hab. in foliis Ilicis Aquifolii in nemoribus prope Rennes, 8945 Galliæ. — Cfr. pleniorem expositionem ap. Ducomet. l. c.

CLAVARIOPSIS De Wild. in An. Soc. Belg. Microsc. XIX pag. 200 (1895). (Etym. Clavaria, cujus habet faciem). — Mycelium endogenum, extrinsecus ramos simplices erectos, septatos, apice clavatos exerens; ramorum cellulæ supremæ in ramulos 1-3 uni-bicellulares abeuntes. — Teste Lindau, an ramuli 1-3-cellulares ut conidia habendi sint inquirendum est.

1. Clavariopsis aquatica De Wild. l. c. p. 201, tab. VI, fig. 1-9. — 8946 Characteres generis; ramuli ultimi (conidia?) breves, recti v. curvuli, 1-3-cellulares, facile secedentes et in aqua seorsim natantes.

Hab. in foliis salicinis putridis, aqua immersis, Ruy Belgii et Nancy Galliæ (DE WILDEMAN).

### ANTHINA Fr. - Syll. XIV p. 1184.

1. Anthina pallida de By., Hedwigia I pag. 35, tab. VI fig. 1-11 8947 (1854). — Mycelio tenui effuso, albo; rhabdis ex eo oriundis rectis, filiformibus, simplicibus vel in ramos binos-ternos partitis, initio albis, dein brunneis, apice tamen jugiter albo et tenuiter penicillato.

Hab. in fragmentis ligneis Abietis excelsæ in calidariis Berolini Germaniæ.

#### OZONIUM Link - Syll. XIV p. 1187.

Ozonium omnivorum Shear, Bull. Torr. Bot. Club. XXXIV 8948 (1907) p. 305. — Mycelio sordide flavo, interdum initio v. in interiore matrice albido; hyphis in rhabdos fasciculatis et extus stratum arachnoideum formantibus et sursum ramulos 1-4 angulo recto patentes proferentibus, 3-5 μ. diam.

Hab. ad terram et ad radices Gossypii, Medicaginis, Batatæ, Pisi, Betæ arborumque fructiferarum, Texas, California, Oklahoma, Indiana etc., Amer. bor., ubi valde noxium. Oz. auricomo affine.

Ozonium Muscorum Roum. et Pat. ap. Roumeg. in Rev. Mycol. V 8949 (1883) p. 29 et 90, tab. 36, fig. 1. — Hyphis in fasciculos connexis, flavo-ferrugineis, filiformibus, parce furcatis, ramosisque, remote septatis, in rhabos, hinc inde plus minusve tumentes intertextis, intus granulosis, 2 μ. cr.

Hab. in caulibus Leucobryi glauci, per quos serpit, Fontainebleau et Ouillan Galliæ. — In exempl. ex Ouillan socius aderat Cantharellus muscigenus forte metagenetice connexus. — Geoglossum ozonioides Letell. Fig. Champ. pl. 672, verisimillime nil est nisi Ozonium auricomum varia ætate et forma observatum.

### RHIZOCTONIA DC. - Syll. XIV p. 1175, XVI p. 1109.

Rhizoctonia lanuginosa N. Bernard in Ann. Sc. Nat. Bot. 9 sér. 8950 IX (1909) p. 35 et seq., t. 5. — Hyphis filiformibus parce ramosis. laxe septatis, 3 μ. cr., ramos toruloso-submoniliformes crassiores 6-7 μ. cr. ramuloso-anastomosantes gerentibus.

Hab. symbiotice et endophytice in Orchideis pluribus tam exoticis cultis quam indigenis in Gallia. — Fungillus cultus habitum lanuginosum, initio opalino-album dein ochraceo-aurantium pallidum sumit — Quoad biologiam hujus formæ et duarum sequentium cfr. N. Bernard l. c.

2. Rhizoctonia mucoroides N. Bernard, l. c. p. 29, f. 3 et p. 46-47. 8951 Hyphis filiformibus remote septatis, parce ramosis, 6-8 μ. cr., hinc inde ramos eximie moniliformes multo crassiores, intricatoramulosos, 16-20 μ. cr. gerentibus.

Hab. cum præcedente in Orchideis variis in Gallia, — Culturâ habitum mucoroidem griseo-brunneum sumit.

3. Rhizoctonia repens N. Bernard l. c. p. 26-31, f. 3, et p. 46-47. — 8952 Hyphis filiformibus irregulariter ramosis, sæpe glomerulatis, remote septatis, hinc inde ramos crassiore sexquisite constricto-moniliformes, simplices v. furcatos 8-9 µ. cr. gerentibus, numquam anastomosantibus.

Hab. cum præcedentibus in Orchideis rarius in Gallia. — Culturâ habitum repentem flavidum mucedineum sumit.

#### RHIZOMORPHA Roth — Syll. XIV p. 1180.

Rhizomorpha subterranea Pers. — Syll. XIV, pag. 1180 — var. 8953 caudata Nees v. E. in Nees, Nöggerath, Bischof, Die unterird. Rhizomorphen, 1823, p. 655 (Acad. Leop.) \*). — Atro-brunnea, levis, ramosissima prælonga, ramis patulis attenuatis.

Hab. ad ligna in fodinis Germaniæ. — Var. scabra Nees, l. c. p. 655. — Sordide brunnea, pendula, scabra, ramosa, ramis subfurcatis, attenuatis, hinc inde fasciculatis. — Cum præcedente. — Var. stellata Nees l. c. p. 655, t. LXII. — Brunnea, levis, ramosa, ramis furcatis in ramulos subverticillatos partitis, horizontaliter patentibus, variæ longitudinis, subulatis. — Cum præcedentibus.

2. Rhizomorpha medullaris J. E. Smith, Traus. Linn. Soc. XII (1818) 8954 p. 374, tab. 20. — Majuscula, trunco primario fuscescenti tereti, intus medulloso flavescente; ramis copiosissimis filiformibus compressis niveis, ultimis fragilibus, tortuosis.

Hab. in trabibus fabrefactis, quas destruit, Londini. — Usque ad 3-4 metra longa.

- 3. Rhizomorpha serpiginosa (Chev.) Sacc. et Trav., Syll. XX p. 680, 8955 Dematium serpiginosum Chevalier Fl. Paris p. 78, t. 3, f. 21 (1826).
  - Rhizoidea, subtus complanato-canaliculata, serpiginosa, passim

<sup>\*)</sup> De Rhizomorphis phosporeis ofr. monographiam Neesianam cit. ubi de earum compositione chemica, phosphorescentia etc. ample tractatur.

subnodosa, fusca, filis intricatis brevissimis, crebris erectiusculis, velutina.

Hab. in cella vinaria ad phialas vini, Parisiis Galliæ. — Ex habitu videtur Rhizomorpha.

## Species omissæ, in posterum suis locis inserendæ.

Ex « Lotos » VIII (1848).

Agyrium chartarum Peyl — Trichopeziza Körberi (Peyl, sub Peziza) — Macrophoma circinans (Peyl, sub Sphæronæma) Sacc. — Hendersonia cytisporoides (Peyl, sub Sporocadus) Sacc.

Ex « Hedwigia » (1893) p. 115.

Boletus Loyo F. Phillippi (cfr. Speg. Myc. Arg. VI (1912) p. 9).

Ex « Bull. Soc. bot. ital. » (1894).

Lactarius violaceo-cæruleus Voglino — Mycena pelianthina, var. umbonata Vogl. — Myc. cærulea Vogl. — Omphalia fibula var. elongata Vogl. — Clitocybe aggregata v. cærulea Vogl. — Clit. odora var. subappenina Vogl. — Amanita virosa var. aculeata Vogl. — Amanita radicata Vogl.

Ex «Schröter, Pilzfl. Schles.» I (1889) p. 561 Marasmius fuscescens Schröt.

Ex « Landw. Jahrb. Berl. » XXIX (1900) p. 541. Venturia Cerasi Aderhold.

Ex « The Kew Bulletin » (1907) (Omnes species exoticæ).

Omphalia lutea Massee — Omph. fuliginosa M. — Omph. Œdipus M. — Pleurotus Cheelii M. — Panus Bartlettii M. — Nolanea nana M. — Agaricus Burkilli (Mass.) Sacc. — Hydnum lateritium M. — Dædalea perpyracea M. — Didymosphæria tetraspora M. — Hypholoma peregrinum M.

l. c. (1908) (Omnes species exoticæ).

Gomphidius roseus M. — Inocybe longipes M. — Stropharia peronata M. — Stroph. umbonata M. — Hypholoma elatum M. — Syll. fung. XXII (VII-1913)

Calodon Ridleyi M. — Geoglossum spathulatum M. — Volvaria esculenta M. — Boletus curtipes M. — Hexagonia Bartlettii M. — Amanita virginea M. — Armillaria squamosa M. — Collybia acuminata M. — Mycena cuspidata M. — Lactarius tricolor M. — Clitopilus flavidus M. — Clitop. curtipes M. — Dædalea Gollanii M. — Lycoperdon lignicola M. — Exobasidium Fawcettii M. — Uredo Satyrii M. — Phyllachora Dawei M.

l. c. (1910) (omnes species exoticæ)

Amanita calabarica M. — Marasmius scandens M. — Galera Burkillii M. — Xylaria Pattersonii M. — Ophiobolus calathus M. — Sordaria crustosa M. — Puccinia Sclerolænæ M. — Marasmius sordidus M. — Lentinus egregius M. — Hypholoma Talbotiæ M. — Lenzites adusta M. — Polyporus indicus M. — Polyporus confusus M. — Nectria theobromicola Bancroft ap. Massee — Sphærulina Worsdellii M. — Elaphomyces sapidus M. — Pilula Massee n. g. (ab Eurotio differt ascis elongatis et sporidiis 1-septatis) — Pilula straminea M. — Eutypa caulivora M. cfr. supra p. 360 (Ob sporidia ellipsoidea e hyalino chlorina, 32-35 × 9-11 in ascis cylindraceo-clavatis, certe non Eutypæ species; an potius Hypoxylo affinius et nov. gen. Hyaloxylum vocandum?).

Ex « Botan. Gazette » XLIX (1910).

Gymnosporangium bermudianum Farlow. Cfr. Ker l. c.

Ex «Sched. ad Kryptog. exs. ed. a Mus. Vind. » Cent. XX. Trametes avellanea Bres. — Ganoderma Sikorræ Bres.



## REPERTORIUM

#### FUNGORUM IN VOL. XXII DESCRIPTORUM

secundum matrices (vegetabilia et animalia)

Obs. — La. Laboulbeniomycetæ — Py. Pyrenomycetæ — D. Discomycetæ — My. Myxomycetæ — Myb. Myxobacteriaceæ — Sp. Sphæropsidaceæ — Mel. Melanconiaceæ — Mu. Mucedinaceæ — De. Dematiaceæ — St. Stilbaceæ — Tub. Tuberculariaceæ — Myc. st. Mycelia sterilia.

Aberia — Py. 4723. Abies - Py. 3814, 3910, 3944, 4022, 4026, 4323, 4338, 4367, 4869, 5016 — D. 5476, 5563, 5311, 5635, 5750, 5887 — My. 6019, 6046 — Sp. 6434, 6485, 6521-6523, 6538, 6550, 6688, 6723, 7560, 7561 — Mel. 7800 Mu. 7961, 8136 — De. 8314, 8343, 8447, 8544 — Tub. 8796, 8870 — Myc. st. 8947. Abutilon - Py 4556, 4648 - Sp. 6971 — Mel. 7648. Acacia — Py. 4548, 4664, 4939 — Mel. Acæna — Py. 3563, 3733, 4234 — Sp. 6366, 7123, 7570 — De. 8519. Acalypha — De. 8637. Acanthaceæ - Py. 4896. Acantholimon — Mel. 7727. Acanthosyris - Sp. 6244 - Mel. 7752. Acer - Pv. 3535, 3611, 4063, 4141, 4142, 4188, 4332 4371, 4528, 4589, 4660, 4681, 5181 — D. 5606, 5629,

5718, 5720, 5764, 5823, 5867 — Sp.

6957, 7048, 7049, 7154, 7536 — Mel. 7710, 7787, 7807, 78**56**, 7861, 7873 — De. 8331 — Tub. 8777, 8797, 8885, 8899. Achillea — Py. 5257 — Sp. 7182, 7238, — Mu. 8211, 8257 — Tub. 8793. Achras — Sp. 6197. Achyranthes — De. 8670 Achyroclines - Sp. 7216. Acokanthera — Pv. 3500. Aconitum — Py. 3557, 4047 — D. 5472, 5508, 5511, 5712, 5748 — Sp. 6638, 7264, 7265 — Mu. 8069. Acoridium — Sp. 6265. Acorus — De. 8348. Acridium — D. 5937. Actinidia — Sp. 6697. Adenostema — Py. 4855 — D. 5837 — Sp. 6615. Adenostyles — Sp. 6572, 6991. Adesmia — Py. 3380, 4195, 4300, 4322. Adiantum — Py. 3427, 4210. Adonis — Py. 3836 — Sp. 6313.

6109, 6110, 6803, 6826, 6848, 6956,

Alpinia - Py. 4114. 4199.

Alsine — Py. 4226 — Sp. 7159, 7278.

1508 Æchmea - Py. 3971. Æcidium — Mu. 7953 — De. 8419. Ægle — De. 8609. Ægopodium - Py. 3747 - Sp. 7447. Æluropus - Sp. 6901. Æpus — La. 3364. Æsculus — Py. 3520, 3716, 4820, 4613 D. 5859, 5868 — Sp. 6740, 6802, 6961, 6962, 7115. Ætoxicum — Py. 3883 — D. 5781 — Sp. 6147, 7164, 7574 — De. 8550, 8595 — Tub. 8925. Afzelia - Py. 3404. Agapanthus - Sp. 6527. Agaricaces - Tub. 8882. Agarious - Mu. 8028. Agave — Py. 4795 — Sp. 6797 — Mel. 7696 — De. 8578. Agropyrum - Sp. 7031. Agrostis - Py. 4276 - Sp. 6897 -De. 8365. Ailanthus - Py. 4607, 4720 - St. 8748. Ajuga — Mu. 8234. Albizzia — Py. 3876, 4016, 4401, 4873, 4893 — Sp. 6943. — De. 8290, 8493 Tub. 8883. Alchemilla — Py. 3377 — D. 5771. Aleurodes (Aleyrodes) - D. 5980 -Sp. 7520 — Tub. 8802. Algæ - Py. 4920. Alkanna — Sp. 6387, 6913. Allium - Py. 4218, 5260 - D. 5907 - Sp. 6487, 7397 - De. 8490, 8577 - Myc. st. 8937, 8938. Allophyllum - Py, 5240. Alnus — Py. 3516, 3518, 3868, 4180, 4198, 4546, 4601, 4699, 4702, 4937 — D. 5459, 5671, 5724, 5759, 5878 — Sp. 6656, 6719, 6720, 7554 — Mel. 7886 — Mu. 8094 — De. 8313, 8427 — Tub. 8815. Aloë - Py. 3993 - Sp. 6445, 6489 -Mel. 7848. Alopecurus — Py. 5255 — Sp. 7099, 7148, 7596.

Aloysia - Sp. 6194.

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Anthemis - Mu. 7949, 8218.

Anthericum — Py. 3832 — Sp. 6446, 7486.

Anthistiria — Py. 3491 — Tub. 8926.

Antholyza - Sp. 6630.

Anthurium — Sp. 6274, 6920 — Mel. 7702 — Mu. 8169.

Anthyllis - Sp. 7301.

Antidesma — Sp. 6145.

Aphænops — La. 3365.

Aphalara — D. 5949, 5957.

Aphides — Py. 5022, 5042 — D. 5961.

Aphis — D. 5956.

Aphodius - Mu. 8140.

Aphrophora - D. 5952, 5953.

Apis — D. 5892, 5893, 5894 — Mu. 7950.

Apium — Sp. 6374, 7319.

Aquilegia — Sp. 6950, 7630 — De. 8344.

Arabis - Sp. 6106.

Arachis — Sp. 6865 — De. 8538 — Myc. st. 8936.

Aralia — D. 5590 — De. 8640.

Araneæ - Py. 5021.

Araucaria - My. 6007.

Arbutus -- Mel. 7673.

Arctostaphylos — D. 5782, 5832 — Mel. 7672.

Ardisia - Py. 4745.

Areca — Py. 4108 — Sp. 6886, 7190 — Mel. 7636.

Arenaria - Py. 5720, 4064.

Aretia — Py. 3755.

Argutor - La. 3363.

Aristida — Py. 4003 — D. 5681.

Aristolochia — Sp. 6235, 6606, 6985 — St. 8764.

Aristotelia — Py. 4558 — Sp. 6149.

Arjona — Sp. 7377.

Armeniaca — Py. 3455 — Sp. 6364, 6750, 7171.

Armeria — Sp. 6421, 6558 — Mu. 8091. Armoracia — Sp. 6104, 6952.

Arnica — D. 5513 — De. 8575.

Arnoseris - Sp. 7470.

Artemisia — Py. 3905, 4197, 4825 — D. 5778 — Sp. 6478, 6592, 7078, 7240, 7472, 7474 — Mel. 7769 — Mu. 7898.

Arthrophyllum — Py. 3622 — Sp. 6181. Artocarpus — Py. 3553, 4450 — My.

6007 — Sp. 6243, 7386.

Arum — Sp. 6275, 6276, 7004.

Arundinaria — Py. 3610, 4554, 4821, 5177 — Mel. 7762 — St. 8771.

Arundinella - Py. 4833.

Arundo — Py. 3890, 4272, 4555, 4556, 4667, 5203 — D. 5496 — Sp. 7489 — Mu. 8265 — De. 8418.

Asclepiadaceæ — Py. 5154 — De. 8666. Asclepias — Py. 8552, 5183 — Sp. 6479, 7088, 7874, 7467, 7552 — De. 8665.

Ascophyllum - Py. 3812.

Asimina - Sp. 6643.

Asparagus — Py. 4113, 4153 — Sp. 7196 — De. 8579, 8683.

Aspergillus — De. 8332.

Asperula — Sp. 6202, 7085, 7327.

Asphodeline — Py. 3786.

Asphodelus — Py. 4266, 4267 — Sp. 6448, 6892.

Asphondilia - Sp. 6504.

Aspicilia - Py. 3859.

Aspidiotus — Py. 4933 — D. 5914 — Mu. 7959, 8062.

Aspidistra — Sp. 7002.

Aspidium — Py. 3810, 3811, 5199 — D. 5876.

Aspidosperma - Sp. 7573.

Asplenium — D. 5624.

Aster — Mu. 8144, 8207, 8209.

Asterina — Py. 3429, 3439, 8440, 3452. Asteriscus — Py. 4289, 4629 — Sp. 6227, 7184 — Mel. 7833.

Astragalus — Py. 3893, 3740, 8883, 4235, 4287, 4290, 4295, 4801, 4889 — D. 5588 — Sp. 6154, 6353, 6812, 7125, 7155, 7281, 7282, 7802, 7527, 7541. — Mu. 8106 — Tub. 8854.

Astrocaryon - Py. 3911.

Atriplex - Py. 4254 - Sp. 6239, 7025, 7249, 7504 — De. 8668. Atta - Mu. 7930. Audibertia — Py. 3751. Avena Sp. 7101 - Mel. 7768 - Mu. 7926, 8078 — De. 8467, 8512, 8513. Azalea - Py. 4086 - Sp. 7373. Azorella — Py. 4240 — Sp. 7544. Baccharis - Py. 3424, 3431, 3432, 4166, 4575, 4697, 4742, 4807, 5215 - D. 5682, 5862 - Sp. 6774, 6878, 7130, 7154, 7352, 7477 — De. 8658. Bactris - St. 8752. Bæomyces — Py. 4136. Baldingera — Sp. 7145. Balladyna - Pv. 3430. Ballota - Sp. 7572. Balsamina — Sp. 6138. Balsamorrhiza — Py. 3763. Bambusa — Py. 3547, 3609, 3661, 3673, 3802, 3864, 3912, 3913, 3949, 3952, 4034, 4045, 4055, 4123, 4172, 4183, 4208, 4349, 4377, 4812, 4829, 4889, 4949, 5001, 5047, 5117, 5118, 5171, 5190, 5265 — D. 5270, 5495, 5602, 5672, 5689, 5725, 5767, 5788 — Mel. 7872 - Sp. 6281, 6728, 6793, 6837, 6898 — De. 8304, 8468 — St. 8707, 8751. Baphia — D. 5480. Baptisia - Py. 4617. Batatas — D. 5900 — Sp. 6941 — Mu. 7992-7994 — De. 8651 — Myc. st. 8936, 8948. Bauhinia — Sp. 6162 — De. 8353. Beaufortia — Sp. 6701. Beckera - Sp. 6671. Begonia Sp. 6142. Bellevalia — Sp. 7392. Bellota — D. 5781. Bembidius — La. 3362. Berberis — Py. 3921, 3978, 4060, 4140, 4822 — Sp. 6841, 6842, 7118, 7513, 7535 — De. 8475 — Tub. 8894. Berlinia — Py. 3421, 5094. Berosus — La. 3371.

Bersama - Py. 3568. Berteroa - Sp. 6319 - De. 8600. Bertia - Py. 5020. Beta - Pv. 4253 - Mv. 6083 - Sp. 6880 — Mu. 7915 — Myc. st. 8936. Betonica - Sp. 7456. Betula - Pv. 3550, 3869, 3909, 4018, 4027, 4365, 4403, 4526, 4880, 4899, 5116 — D. 5461, 5528, 5577, 5735, 5883 — Sp. 6622, 6651, 6687, 6784, 6917, 7258, 7553, 7626 — Mel. 7684. 7839, 7871 — Mu. 7925, 8093 — De. 8559 — Tub. 8894. Biatora - Py. 3615. Bidens - D. 5984 - Sp. 6305, 6404. Bignonia — Mel. 7832 — Mu. 8261. Bignoniaceæ — Py. 5136 — D. 5276 - Sp. 7177, 7338 - Mel. 7662 -Mu. 8246 — De. 8537. Bischofia — Mel. 7677. Biscutella — Sp. 6614. Bletia — Sp. 6266. Blumenbachia — Sp. 7277. Boërhavia — Sp. 6241. Boldoa — Py. 3415, 3860, 3908, 4048, 4246, 4970, — D. 5781 — Sp. 6329, 6330, 6463, 6569, 6616, 6766, 6846, 7574 — De. 8383, 8594 — Tub. 8925. Boletus — Mu. 8002. Bombax — De. 8398. Bombus — D. 5893. Boquila — Py. 3713. Borrago — D. 5893. Bos — D. 5932, 5933 -- Mu. 8269, 8273. Boscia — Mel. 7792 — De. 8405. Botrytis — De. 8389. Bouteloua - Py. 4771 - Sp. 7142 -Tub. 8916. Bovista — Sp. 6460. Brachinus — La. 3350, 3351, 3353, 3358. Brachypodium — Mu. 8159, 8160 — De. 8364. Brachytrichia — Py. 3813. Brassica — D. 5700, 5908 — Sp. 6304 De. 8601 — Myc. st. 8936.

Briza - Py. 4293. Bromelia — Sp. 6272, 6443. Bromeliaceæ - Py. 3633, 4156 - D. 5652, 5834 — De. 8320. Bromus — Sp. 6284, 7404, 7405 — Mel. 7767, 7768 — De. 8430, 8514. Broussonetia - Py. 4395 - Sp. 6252, 6717. Brucea — De. S611. Brunella - Py. 4389 - D. 5650 -Sp. 7457. Bryonia — Sp. 6410, 6914, 7082. Bryum — Sp. 6455. Buddleja - Py. 3409, 3481. Buellia - Sp. 6795. Bufo - Tub. 8834, 8888. Bulbostylis - Py. 4763. Bulgaria — De. 8324. Bulnesia — Py. 4163, 5204 — Sp. 6804. Bupleurum - Py. 3746, 3848 - Sp. 7310.

Buxus — Py. 4370, 4806, 5137 — Sp.

Butomus — Mu. 8242.

7165 — Mu. 8108.

Byrsonima — Mel. 7823.

Cactaceæ - Py. 4201. Cæpa - Mu. 8141. Cajanus — Tub. 8853. Calamagrostis — Py. 3804, 4125 — D. 5657 — Sp. 6640, 7108 Calamintha - Sp. 7334. Calamus — Py. 4516, 5228 — Sp. 6726. Calceolaria — Sp. 6217. Calla — Sp. 7003. Callida — La. 3336. Callitriche - My. 6078. Calluna - Py. 3937, 4017. Caloplaca — Mu. 8156. Calotropis — Sp. 6987 — De. 8664. Calvatia — Sp. 6458, 7102. Calycanthus - Sp. 6472, 6590, 6834. Calycophyllum — Sp. 7329. Calycotome — Py. 4237. Calystegia — Sp. 6507, 6982. Camellia — Sp. 7169 — Mel. 7711.

Campanula — D. 5755 — Sp. 6199,

6200, 6201, 6768, 6989, 7179 — Mu. 8227, 8228. Camphora — Sp. 7013. Campomanesia — Py. 4729. Cananga — Mel. 7731, 7813. Canarium - Py. 4722, 5088. Canavalia - Sp. 6546. Candelaria - Tub. 8886. Canellinha - Mel. 7775. Canestrinia — La. 3324. 3325, 3326. Canis — D. 5965 — Mu. 8077, 8268, 8269, 8276, 8277. Canna — Py. 3796, 4116, 4928. Cansjera — Py. 5145. Canthium - Py. 3435. Caperonia - Sp. 7581. Capnodium — De 8389. Capparis - Sp. 6107, 6108 - Mu. 7958. Capsella — Sp. 7270. Capsicum — Sp. 6391 — Mel. 7748 — Myc. st. 8936. Caragana — Py. 3737, 4840 — Sp. 7172, 7515. Cardamine — Sp. 7268, 7269. Cardiospermum — Sp. 6133 — Tub. 8804. Cardnus - Py. 3825 - D. 5616 - Sp. 7349, 7628 — Mu. 8112 — De. 8659. Carex — Py. 3998, 4325 — D. 5370, 5402, 5464, 5493, 5494, 5534, 5555, 5600, 5601, 5604, 5620, 5621, 5622, 5646, 5773 — Sp. 7199, 7200, 7201, 7563 — Mel. 7890 — De. 8298, 8299, 8340, 8680. Carica — Sp. 6943, 6944, 7421. Carpinus — Py. 3940, 3941, 4870, 4899, 5116 — D. 5542, 5671, 5883 — Sp. 6740, 7260, 7511 — Mel. 7860 — De. 8456, 8557. Carya — Py. 4597, 4924 — Sp. 6251, 7133. Caryota — Py. 4789 — D. 5553. Casearia — Sp. 6646. Caseus - Mu. 7998, 7999, 8000, 8001, 8005, 8010, 8011, 8012, 8029-8031, 8033, 8034. 8044 — De. 8326, 8327, 8420.

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Tub. 8785, 8852.

Cerevisia — D. 5896-5899, 5942-5945, 5967. Cerinthe - Sp. 7450 - Mu. 8238. Ceroplastes - Mu. 7907, 8046. Cestrum — Py. 3433. 4625 — Sp. 6214, 6390. Cetonia - D. 5894. Cetraria - D. 5818, 5819. Chænocephalum - Py. 4556, 4668. Chærophyllum — Sp. 6301 — Mu. 8255. Chætothylax - Py. 4709. Chamæcrista - Py. 3459. Chamæcyparis — Mel. 7728. Chamæleo - Tub. 8890. Chamærops — Pv. 4641 — De. 8297. Charta - Py. 3411, 3413, 3684, 3697, 3700, 4134, 4135, 4994 — D. 5279, 5697, 5880 — Myb. 6094 — Sp. 6553, 6830, 7664 — Mu. 8032, 8051, 8075, 8076 — De. 8307, 8333, 8369, 8448. Chasmantheria — Mu. 8254. Cheiranthus - Py. 4218. Chelidonium — Sp. 6953. Chenopodiaceæ — Tub. 8846. Chenopodium - Py. 3777 - Sp. 6237 — De. 8669. Chermes — D. 5959, 5960, 5976. Chloris — Py. 4773 — Sp. 7108, 7614. Chondrilla - Sp. 6407. Chorda — D. 5506. Chrysanthemum — Sp. 6398, 7018, 7076, 7239, 7839, 7340, 7478 — Mel. 7834 - Myc. st. 8936. Chrysobalanus — De. 8501. Chuquiraga — Py. 4252. Chusquea — Py. 3798, 3865, 4154, 4567, 4596, 4666, 4670, 4671, 5166 5202, 5209, 5210, 5227, 5254 — D. 5274 Sp. 6923, 7576 — De. 8296, 8509. Cicada — D. 5911, 5950, 5951, 5962 — Sp. 6295 — Mu. 8045 — St. 8719 — Tub. 8887. Cicuta — D. 5989 — Sp. 6187. Cimex - St. 8721. Cinchona — D. 5268 — Sp. 6204, 6870 -- Mel. 7747. - De. 8554.

Cinnamomum — Py. 3470, 4701 — D. 5891 — Sp. 6140, 6691 — Mel. 7746.

Cionandra — Sp. 7549.

Cirsium — Py. 4892 — D. 5482, 5567
— Sp. 6573, 6612, 7348, 7525 — Mu. 3210, 8216 — De. 8574.

Cissampelus - De. 8607.

Cissus - Sp. 6148 - St. 8774.

Cistus — Py. 3497, 3510.

Citharexylon — Py. 3599.

Citrullus — Py. 8722 — Sp. 7861 — Mel. 7667 — Tub. 8851, 8861 — Myc. st. 8986.

Citrus — Py. 8498, 8510, 8681, 4506, 4540, 4556, 4557 — D. 5267, 5941 — Sp. 6325, 6800, 6858, 7040, 7225. 7616 — Mel. 7656 — Mu. 7924, 8088, 8055, 8195 — De. 8311, 8855, 8558, 8401-8403, 8445, 8451, 8454, 8566, 8567, 8609 — Tub. 8858.

Cladium - Py. 3489.

Cladonia — Py. 4400, 5023 — D. 5814 — My. 6076.

Cladosporium — De. 8389

Cladrastis — Sp. 7230.

Clausena — Py. 4718.

Clematis — Sp. 6806, 6318, 6840, 7151, 7152, 7154, 7263 — Mu. 7941.

Clerodendron — Py. 3572 — Tub. 8790.

Clinopodium - Sp. 7459.

Clitoria — De. 8627.

Clusia — Mel. 7815.

Cnidoscolus - Mu. 8161.

Coccidia — Py. 5026, 5038, 5040, 5043 Sp. 7517, 7519-7521 — Mu. 8148.

Coccocarpia — Py. 3546.

Coccoloba — Py. 4761, 4762, 5157, 5216.

Cocconia - Py. 3846.

Cocculus — Sp. 6111, 6732, 6926.

Coccus — Mu. 7940 — Tub. 8838.

Cocos — Py. 3664, 3671, 3672, 3797, 8926, 8989, 8990, 4109, 4479, 4535, 4543, 4595, 5165 — D. 5422 — Sp. 6725, 6820, 6887, 7521 — Mu 7959 De. 8507 — St. 8767. Cœlogyne - Mel. 7760.

Coffea — Py. 3527, 3570, 3903, 3984, 4028, 4658, 4654, 4684, 4685, 4690, 4696, 4942, 4995, 5083, 5084, 5112, 5125, 5126, 5174 — D. 5891 — Sp. 6208, 6772, 6869 7330 — Mel. 7668-7670, 7829 — Mu 7967, 8039 — De. 8357, 8496 — Tub. 8912, 8924.

Colchicum — Sp. 6999 — Mu. 8091. Coleoptera — La. 3366 — Py. 5055, 5056.

Coleopterophagus — La. 3328.

Collæa — De. 8622.

Collema - Py. 3893, 3894.

Colobanthus — Py. 4225.

Colocasia — Sp. 6277, 6278 — De. 8677. Colutea — Py. 4218 — Sp. 7061, 7154. Comarum — Sp. 6363 — De. 8292.

Combretum - Py. 5141.

Comollia - Sp. 6175.

Composite — Py. 3403, 3447, 3473, 3613, 3623, 3758, 3824, 4391, 4574, 4633, 4742 — D. 5269 — Sp. 6684, 7077.

Comptosperma - Mel. 7827.

Coniferæ — D. 5475, 5761 — My. 6010, 6044 — Sp. 7210 — Mu. 8168 — De. 8294, 8338, 8576.

Conium — Py. 3616, 4076, 4077 — Sp. 7318 — De. 8498.

Coniosporium - Tub. 8883.

Connarus — Py. 5092.

Conocephalus - D. 5504.

Conomelus - D. 5912.

Convallaria — Mu. 8121 — De. 8489.

Convolvulaceæ - Sp. 6620.

Convolvulus — Sp. 7332, 7333.

Copernicia — Mel. 7816.

Coptosperma - Sp. 6771.

Corallodendron - Py. 4616, 5232.

Cordaites - Py. 4336.

Cordia — Py. 3475, 3538, 4542, 4664, 4943 — Mu. 7947.

Cordyline — Py. 4121 — Sp. 6268, 6526 — Mel. 7802 — De. 8673 — Tub. 8822.

Coriaria — Py. 3840 — Sp. 6119, 6346, 6411, 7426.

Cyathus - Mu. 7962. Corisia — La. 3373. Corispermum - Sp. 7092. Corium — Mu. 8082. Cornus — Py. 4378, 4657, 4980 — D. 5441 — Sp. 6178, 7582 — Mu. 7919 De. 8406. Coronilla — Sp. 6354, 6504 — Mu. 8072 — De. 8628. Corticaria - La. 3342\*. Corticium — D. 5560, 5851 — Mu. 7916 — De. 8459. Corylus — Py. 4011, 4599 — D. 5460, 5487 — Mel. 7682, 7718. Corynocarpus — Sp. 6130. Corypha — Py. 4218 — Mel. 7845. Corytholoma - Sp. 6647. Cosmus — Sp. 6477. Cotoneaster — Py. 3815. Cotyledon - Sp. 7011. Crantzia - D. 5821. Cratægus — Py. 3605, 8662, 3784, 4586, 4545 — D. 5447, 5709 — Sp. 6729 — Mel. 7652 — Mu. 7942 — De. Crepis — D. 5983, 5988. — Sp. 7131. Crescentia — Py. 4499. Cricula - Py. 5027. Crinum — Sp. 6271, 7136 — Mel. 7700. Crossopetalum - Py. 3474. Crotalaria — Py. 3741. Croton — Py. 4627, 4672, 4750, 5155 - Sp. 6659. - De. 8638. Cryptocarya — Py. 3776, 3826, 5080, 5206 — Sp. 7559. Cryptomeria - Mel. 7844. Cryptotænia - Py. 3749. Cubeba — Py. 5114. Cucumis — Py. 3722 — Sp. 6983, 6984 — De. 8586, 8696 — Myc. st. 8936. Cucurbita — Py. 4865 — Sp. 6513 — De. 8552, 8553 — Tub. 8824. Cumingia — Sp. 6116. Cupania - Py. 3877, 4194. Cuphea — De. 8428. Cupressus — Py. 3608, 5230 — D. 5853 — Sp. 7192. Curcuma — Py. 4199.

Cycas - Py. 4107 - Sp. 6594 - Mu. 7940.Cyclamen - Sp. 6195. Cydonia — Py. 3731, 3815, 3898, 3932-3934 — D. 5449, 5784 — Sp. 6171, 6367, 6469, 6540, 6542, 6543, 6695, 6752-6754, 6860, 6927, 7058, 7440 Mel. 7770, 7803, 7875 — Mu. 8083, 8167 — Tub. 8856. Cymbidium — Mu 7957 — Tub. 8872. Cynanchum — D. 5717. — Sp. 6286, 7375. Cynara — Sp. 6992 — Mu. 8173. Cynodon — De. 8517. Cynoglossum — Py. 3771, 4094 — Sp. 7072, 7451 Cyperace — Py. 5041 — D. 5554. Cyperus — Py. 3489, 4766 — De. 8508 Tub. 8812. Cypripedium — Mel. 7760. Cystopteris — Py. 4294. Cytisus — Sp. 6855, 7154, 7628 — De. 84.6. Cytospora - Sp. 6655. Dactylis — Mel. 7768 — Mu. 8171 — De. 8430, 8491. Dactylopius — D. 5982 — Tub. 8805. Dahlia — Sp. 6704, 7080 — Mu. 7965. Dalbergia — Py. 3380, 4786. Daniella — Sp. 6648. Danthonia — Py. 3638 — Sp. 6287. Daphne — Py. 5151 — D. 5645 — Mel. 7783. Darluca — Py. 3858. Datisca — Sp. 7443. Datura — Py. 4203 — Sp. 6352, 7069, 7448 — De. 8695. Daucus — Sp. 7444 — Mu. 7989 — De. 8586. Davilla — Py. 3496. Delphinium - Py. 3838. Dendrobium — Mel. 7706, 7760. Dendromecon — Py. 4137. Dentaria - Sp. 6165. Derris - Py. 3565, 4787, 4799, 5140 -

Sp. 6156, 6660, 6661 — Mel. 7709 — Mu. 8247. Deschampsia — Sp. 7207. Desmodium — Myc. st. 8936. Desmoncus — Py. 4110. Deutzia — Sp. 7057, 7154. Dianthus — Py. 3414, 3979 — Sp. 6955, 7158, 7603 — Mu. 8066, 8086, 8184 — De. 8587. Diapensia — Py. 3579. Diatræa — Py. 5057. Diatrypella - Tub. 8788. Dichondra — Sp. 6605. Dicotyledones — D. 5715. Dietamnus — Sp. 6125, 7430, 7601 — Mel. 7736 — De. 8570. Didymodon - D. 5423. Diervilla — Sp. 6198, 6975. Digitalis — Py. 4092 — Sp. 6769. Dillenia — De. 8614. Dimerium — Sp. 6624. Dimerosporium — Py. 4995 — Sp. 6625 - Tub. 8924. Dineutes — La. 3360, 3361. Dioscorea — Mel. 7701 — De. 8674. Dioscoreaceæ — Sp. 6273. Diospyrus — Sp. 6208, 6397, 6476, 6859, 7567 — Mel. 7835 — De. 8441. Diplachne - Py. 5266. Diplotænia — Py. 4238. Diplothemium — Py. 4808. Dipsacus — Sp. 6221, 6398, 6990 — Mu. 8226 — De. 8684. Dipterocarpus — Py. 5212. Discaria — D. 5299 — Mel. 7816. Discodothis — Py. 4996. Dissochæta - Py. 3561. Distichlis — Sp. 7410. Ditiola — Mu. 8070. Dolichos — De. 8623. Dorcus - My. 6082. Doronicum — Py. 3761 — Sp. 6229, 6230, 7345 — Mu. 8220. Draba — Sp. 7107. Dracæna — Py. 3488, 3594, 3595, 3970

Sp. 6267, 6268 — Mel. 7699, 7757,

7758.

Dracocephalum — Sp. 7460, 7461. Drimys — Py. 5101 — Sp. 7276, 7543, 759S — Mel. 7814 — Mu. 8062. Dryas - Py. 3732, 4176. Drymocallis — Mel. 7781. Dryopteris — Py. 5194. Durio — Sp. 6134 — Mel. 7737. Duvaua — Py. 5188 — D. 5572 — Sp. Dyckia — Py. 4265 — Sp. 6442, 6528, 6529. Echinops — Sp. 6337, 6403. Echium — Py. 3600, 4390 — Sp. 6591. Edessa — St. 8715. Elachiptera — La. 3346. Elæagaus — Py. 4624 — Sp. 6818, 6910, 7244-7246 — Mel. 7830. Elæus — Py. 5196. Elatostema — Py. 3484. Eleusine — Py. 4781. Elodea — Mu. 8248. Elymus — Py. — 4000 — Sp. 7441. Empetrum — D. 5839. Ephedra — Py. 3629, 3807, 4106, 4258, 4309, 5186 — Sp. 6919, 7194, 7195. 7211, 7484 — De. 8487. Epigæa — De. 8654. Epilobium — Py. 4364, 5170 — D. 5524 - Sp. 6177, 6663, 7028, 7587 - Mu. 8067, 8110, 8158, 8198 — De. 8432. Epipactis - Sp. 7178 - De. 8675. Equisetum — Py. 4004, 4132, 4279, 4906, 4969, 4991 — D. 5614 — Sp. 6827. Equus — D. 5934, 5935 — Mu. 8269, 8270, 8274, 8277 — Tub. 8889. Eragrostis — De. 8515, 8523. Erechtites — Myc. st. 8936. Erica — Py. 3850, 3958, 3985 — D. 5893 — Sp. 6415, 6419. Erigeron — Mel. 7676 — Myc. st. 8936. Eriobotrya — Py. 3555, 4073, 4161, 4691 — Sp. 6809, 7015, 7170, 7295 — Mel. 7650 — De. 9440. Eriochloa - Py. 4770. Eriophorum — D. 5799 — Sp. 7138, 7399 — St. 8706.

Eriophyes - Mu. 8130. Erithalis - Py. 3478, 5135. Erodium — Sp. 6120. Eryngium — Py. 3643, 3743, 3842 D. 5830 — Sp. 6184, 6185 — De. 8541 — Tub. 8779. Erysimum - Py. 4220 - Sp. 6597, 7267.Erysiphe — Sp. 6585, 6587. Erythræa - Py. 4179 - De. 8655. Erythrina - Py. 3601, 3785, 5282 -My. 6071 — Sp. 6158, 7175, 7309 — Mel. 7742 - Myc. st. 8934. Erythronium - Sp. 7394. Erythrophlæum — Py. 5213 — Sp. 7307. Erythroxylon - Py. 4717. Escallonia — Py. 3375, 3750. Eucalyptus — Py. 3523, 2727, 4301, 4683, 5075 — D. 5348 — My. 6012, 6056 — Sp. 6368, 6564, 6839 — De. 8540 — Tub. 8897, 8927. Eugenia — Py. 3422, 3467, 3492, 3508, 3880, 3899, 4150, 4151, 4539, 4715, 4728, 4982, 5009, 5069, 5093, 5099, 5178 — Sp. 7517, 7571, 7594, 7597 — Mel. 7795, 7824 — De. 8525. 8526. Eupatorium — Py. 3473, 4590 — D. 5591 — Sp. 6226, 7077 — De. 8410. Euphorbia - Py. 3377, 4310, 4518, 4559, 4688 — Sp. 6349, 6762, 7289, 7290 — Mel. 7878 — Mu. 7945, 7953 — De. 8419 — Tub. 8791. Euphorbiaceæ — Py. 5156 — De. 8520. Euphrasia - Py. 4242. Europterygius — Mu. 8137. Eurya — Py. 5067. Euterpe — Sp. 6888. Evernia — Py. 4993. Evonymus — Py. 4233 — Sp. 6807, 6960, 7154 — Mel. 7642 — De. 8388. Excecaria — Py. 4751. Exoascus — De. 8415. Fagara — Mel. 7644 — De 8451.

Fagopyrum — Sp. 6481.

Fagus — Py. 3380, 4186, 4187, 4257,

Fagræa — Py. 3576.

**5528**, **5548**, **5593**, **5645**, **5664**, **5740** — My. 6018, 6057, 6061 — Myb. 6088 - Sp. 6736, 6798, 6830, 7496, 7555, 7558 — Mu. 7917, 8094 — De. 8385. 8444, 8530 — Tub. 8866. Ferula - Py. 3748. Festuca — Py. 4312, 3416, 3805, 3806, 4130, 4274 — D. 5575 — Sp. 6290, 7022, 7117 — Tub. 8782. Py. 3389, 3419, 3450, 3451, Ficus 3513, 8526, 3587, 3627, 3701, 3779, 3780, 3835, 3986, 4382, 4752-4760, 4793, 4863, 4922, 4923, 4940, 5008, 5127, 5131, 5224, 5251 — D. 5525, 5844, 5888 — Sp. 6249, 6250, 6427, 6517, 6518, 3593, 6685, 6882, 6996, 7385 — Mel. 7754, 7755, 7799, 7838, 7893 — Mu. 8046, 8155 — De. 8312, 8346, 8347, 8351, 8372, 8435, 8436, 8457, 8458, 8505 — St. 8705, 8713, 8728, 8772 — Tub. 8783, 8509, 8811, 8826, 8867, 8900, 8905, 8921, 2923 — Myc. st. 8936. Filices — Py. 4317, 4919, 5124, 5194 — D. 5620, 5776 — Mu. 8147. Fimbristylis — Py. 4767 — D. 5618. Fimus Py. 3413, 3417, 3603, 3685, 3686, 3689, 3691-3695, 3704-3707, 3959, 4191, 4192, 4854, 4863, 4871, 4891, 5018 — D. 5369, 5410, 5411, 5430, 5488, 5692-5696, 6699, 5701, 5702 — Myb. 6084, 6086, 6087, 6090, 6091, 6093-6096, 6098, 6099, 6100 - Sp. 7040 — Mu. 7981, 8023, 8032, 8137, 8165, 8175 — De. 8396, 8536 — St. 8762. Flourensia — Sp. 6231, 7353. Feeniculum - Py. 3744, 3745, 4669, 5005, 5070 — Sp. 6491, 7067 — Mel. 7789. Feenum — Py. 3700 — Mu. 8128, 8146, 8163 — St. 8732-8734. Formica — Py. 5063. Forsythia — Sp. 6709, 6874, 7241. Fourcroya — Py. 4588, 4845 — Sp. 6488.

4316, 4348, 4376, 4418, 4586, 4655,

4857, 4987, 5250 — D. 5473, 5527,

Fragaria — Py. 3556 — Sp. 7441 — Mu. 8196 — De. 8618.

Francoa — Py. 4080, 5169, 5247 — Sp. 6470.

Frangula - Py. 3831, 4053.

Fraxinus — Py. 3767, 4147, 5229, 5246 — D. 5261, 5654 — Sp. 6211, 6212, 6872, 7510 — De. 8356, 8446, 8483, 8645.

Freycinetia — Py. 4790.

Fuchsia - Sp. 6176, 6584.

Fumaria — Sp. 6954 — Mu. 8180.

Fungi — Py. 4962 — D. 5660 — Myb. 6085, 6094 — Mu. 8002, 9025, 8031, 8033, 8034, 8042, 8249.

Funkia — Sp. 6270, 7000, 7622. Fusarium — Mu. 8072.

Gadua — Py. 4826 — D. 5642.

Gaillardia — D. 5985 — Sp. 7347.

Galanthus - D. 5462.

Galega - Sp. 6965.

Galeobdolon - Sp. 6190 - De. 8646.

Galerita — La. 3355, 3356.

Galium — Py. 3774, 4093, 4218, 4713 — D. 5608, 5649 — Sp. 7027, 7325, 7326 — Mu. 7986, 7987.

Gallinacea — Mu. 8272, 8280.

Galtonia - Py. 3791.

Garcinia - Py. 5088 - Mel. 7647.

Gardenia - Py. 3405 - Mu. 8205.

Gargus - La. 3349.

Garrya — D. 5855.

Gasteria — Sp. 6829.

Gaylussacia — De. 8653.

Geaster — Py. 4133 — D. 5310 — Sp. 6457, 6611, 7103-7105, 7112, 7146-7148, 7208, 7209, 7621.

Geasteropsis — Sp. 6459.

Genista — Sp. 7063, 7154, 7173, 7806, 7436.

Gentiana - Sp. 7455, 7548.

Geranium — Py. 4359 — Sp. 7032, 7275,

7431, 7591 — St. 8742.

Geum — Py. 4362 — Mu. 8197. Gingko — Sp. 6737 — De. 8393.

Gladiolus - Sp. 6440, 7001.

Gleditschia — Py. 4537, 4682 — Sp. 6937, 7060, 7111.

Globularia — Py. 3756 — Sp. 7452, 7453.

Glyceria — Py. 4825 — D. 5658 — De. 8437.

Glycyrrhiza — Sp. 6352, 7064, 7437.

Gmelina — Sp. 6775, 6876.

Gnaphalium — Py. 3759, 4030 — Sp. 7473.

Geoppertia - Py. 4786, 5217.

Goniocotes — La. 3374.

Gossypium — Py. 3551 — Sp. 6115, 6335 — Tub. 8861 — Myc. st. 8948.

Gourliea — D. 5841.

Graminaceæ — Py 3491, 3542, 3660, 3927, 4033, 4037, 4044, 4131, 4275, 4285, 4487, 4816, 4819, 4930, 5019 — D. 5494, 5520, 5556, 5561 — My.

6075 — Sp. 6533, 7620 — Mel. 7768, 7774 — Mu. 8022, 8050 — De. 8430

- Tub. 8846, 8874.

Graphis - D. 5814.

Gratiola — Sp. 6216.

Grevillea — Py. 3482.

Grewia — Py. 5031, 5104 — De. 8407, 8499.

Gromphas - Mu. 8129.

Grossularia — De. 8589.

Guadua - Py. 3650.

Guatteria - D. 5640.

Guettarda — Sp 6554.

Guevina — Py. 3907 — D. 5781 — Sp. 6248, 6425, 6516.

Gunnera — Mu. 8109.

Gymnocladus — Sp. 6357, 6757, 6758, 7438.

Gymnopogon - Py. 3448.

Gynerium — De. 8305.

Gypsophila — Py. 3719, 4065, 4283 - Sp. 6334, 7055.

Gyrinus - La. 3360.

Halesia — Py. 5173.

Hamadryas - Py. 3962.

Hamamelis — Sp. 6858.

Haplopappus — Sp. 7237.

Haworthia - Sp. 7020. Hedera - Py. 4813, 5197 - D. 5612 - Sp. 6179, 6182, 6183, 6303, 6369, 6512. — Mel. 7744. Hedychium — Sp. 6530 — Mel. 7842. Hedypnois - Mu. 8221. Hedysarum - Py. 3617. Heleocharis - Sp. 6450 - Tub. 8873. Helianthemum — Py. 3506, 3896, 4223 — D. 5306 — Sp. 7126 — De. 8605. Helianthus — Sp. 6514, 7628. Helichrysum — Py. 4250 — Sp. 6402. Helietta — Sp. 6598. Heliopsis — Sp. 6224. Helleborus — Sp. 6741. Helminthosporium — D. 5674. Helminthostachys — De. 8648. Helosciadium - Mel. 7867. Hepatica (Anemone) — Sp. 6949. Hepaticæ — D. 5610 — My. 6058. Heptapleurum — Sp. 6946 — Mel. 7842. Heracleum - Py. 3935, 4036 - D. 5990 — Sp. 6371, 6506, 7313, 7314, 7446 — Mu. 8203. Heteropteris - Py. 5071, 5096, 5105, 5222. Heterosporium - Mu. 8139. Hevea — Py. 8526, 4551, 4622, 4875, 5138 — Sp. 6144, 6348, 6570, 6844, 6845, 6939 — Mel. 7678, 7679, 7750 — De. 8502, 8598. Hibiscus — Py. 4414 — Sp. 6806, 6852, 7052, 7220, 7221. Hieracium — Sp. 6309, 7034 — Mu. 7918, 8222, 8224, 8260. Hierochloa — Sp. 7204, 7501 — De. 8532. Himanthophyllum — Mel. 7759. Himeranthus — Sp. 6215, 7371. Hippocrepis -- De. 8631. Hippophaës — Py. 3380, 4084, 4085 — D. 5558, 5570. Hirtella - Py. 4788, 5108, 5123 Sp. 7595. Hirundo — Sp. 6463. Holcus — Sp. 7500. Holocælenus — La. 3329.

Holocalyx — Mel. 7657. Homalota — La. 3334. Homo — D. 5917-5930 — Mu. 7908-7912, 7970, 7971, 7995, 8047, 8061 8078-8081, 8100, 8266, 8267, 8269, 8279, 8282-8287 — De. 8325, 8366 — St. 8736. Hopea — Mel. 7797. Hordeum — Py. 3698 — Sp. 7039, 7406, 7498 — Mel. 7768 — Mu. 8153 — De. 8400, 8430 — Tub. 8877. Hovenia — Py. 3392. Hova — Pv. 3575, 4244, 5235. Hualania - Py. 3922, 4804 - Sp. 6796. Humulus — Py. 3533 — D. 5490 — Sp. 6782, 7024, 7093, 7384, 7482. Hyacinthus — Py. 4260, 4967. Hyalis — Sp. 7129. Hydnocarpus — Py. 5088. Hydnophytum — Py. 5011. Hydrangea — Sp. 7176 — De. 8639, 8693 — Myc. st. 8936. Hydrocotyle — Sp. 7311. Hylecœtus — D. 5882. Hymenæa — Py. 3647. Hymenolepis — Py. 5192. Hymenoptera — Py. 5060. Hyosciamus — Sp. 7035, 7370. Hyoseris — Sp. 7358. Hypericum — Py. 4062 — Sp. 6328, 6744, 7274, 7491 — Ma. 8104, 8235. Hypnum — Py. 3820, 3884 — D. 5522. Hypocrella — St. 8709. Hypomyces — Py. 4861. Hypoxylon - Py. 4968. Hyptis — Py. 3476.

Icerya — D. 5981. Ichnanthus — Py. 4818. Ilex — Py. 3460, 3515, 3521, 3708, 3822, 3861, 3866, 3900, 3928, 3966, 3982, 3987, 4015, 4069, 4159 4813, 4418, 4581, 4565, 4570, 4582, 4619, 4647, 4661, 4692, 4704, 4813, 4998, 5006, 5068, 5097, 5134, 5144, 5228 — D. 5795, 5797, 5828, 5850, 5852 — Sp. 6129, 6131, 6132, 6344, 6345, 6492, 6759, 6760, 6761, 6849, 7119, 7161, 7162, 7503, 7586, 7617 — Mel. 7785, 7791 — Mu. 7954 — De. 8360, 8494, 8551, 8571, 8615, 8692 — St. 8757, 8759 — Tub. 8919 — Myc. st. 8945.

Impatiens Py. 3821 - Mu. 7985.

Imperatoria — Mu. 8204.

Inga — Py. 3512, 3675 — D. 5758 — Sp. 6936.

Inocarpus — Py. 4904 — Sp. 6555.

Insecta — Py. 5061 — Mu. 8174 — St. 8739.

Inula - Sp. 7079.

Ipomœa - Sp. 7463.

Iresine - Mu. 7939.

Iris — Py. 3602-3794, 4111, 4112 — De. 8429.

Isachne - Sp. 6669.

Isochilus - Sp. 6608.

Ixora — Mel. 7745.

Jacaranda — Sp. 7516 — Tub. 8917. Jacquinia — Py. 4743, 4744.

Jambosa - Py. 4330.

Jasminum — Py. 3443, 3612 — Sp. 6873 — Mel. 7722.

Jatropha — Sp. 6635 — De. 8634, 8694.

Juglans — Py. 8892, 8778, 4583, 4597, 4971 — Sp. 6688, 6918, 7094, 7591, 7628 — Mu. 8040 — De. 8591 —

Tub. 8869.

Juneus — Py. 3596, 3995, 3996, 4122, 4284, 5052 — D. 5585, 5561, 5666, 5811 — My. 6079 — Sp. 6668, 7098, 7562.

Jungermannia — D. 5659 — Mu. 7952. Juniperus — Py. 4169, 4170, 5268 —

D. 5820, 5838, 5848 — Sp. 6652, 6653 — De. 8466.

Jurinea - Mu. 8215.

Jussieua — Sp. 7287, 7288.

Kalmia — Sp. 6205. Karissa — Py. 3495. Kennedya — Sp. 7308.

Kentia - Py. 3559 - Mel. 7721.

Kerria - Sp. 7229, 7299.

Kickxia — Py. 3511, 4927 — Tub. 8833.

Kleinhofia - De. 8613.

Kochia — Sp. 6482, 7481.

Kœleria — D. 5521.

Koelreuteria — Sp. 6139, 6757, 7120.

Kyllingia - Py. 5044.

Labia — La. 3322, 3323.

Labiatæ - Py. 3624.

Lac — D. 5971 — Mu. 8011.

Laccophilus — La. 3331, 3332, 3333.

Lacerta — Tub. 8890.

Lachnea — Mu. 8125.

Lactarius — Py. 4850-4852, 4862 — Mu. 7929.

Lactuca — Py. 4394, 4687 — Sp. 6232; 7479 — Mel. 7777 — Mu. 8157.

Lagenaria — Sp. 6703.

Lagerstræmia — Py. 3382 - D. 5546, 5824.

Lamium — Sp. 6189.

Lampsana — Sp. 6405 — Mu. 8114.

Lantana — Py. 4032, 4585.

Lapageria — Py. 3592, 3788, 4262 — Sp. 7214.

Lappa — Ру. 3703 — Sp. 6993

Lardizabala — Py. 3562, 3714, 5073, 5205, 5231 — D. 5808 — Sp. 6822, 6823, 6463, 6494, 7578.

Larix — Py. 4259 — D. 5596, 5744, 5866 — Sp. 7613, 7628 — Mu. 8120 De. 8413 — Tub. 8919.

Larrea — Py. 4298, 4311, 5179, 5182 — Sp. 6907 — Mel. 7778.

Laserpitium - Sp. 7312.

Lathrobius — La. 3349.

Lathyrus — Py. 3738 — Sp. 6627, 6756, 7303 — Mel. 7796, 7863, 7883, 7884 — Mu. 8189, 8190.

Lauraces — Py. 4787, 4788, 4815, 4985 — D. 5648, 5679, 5831 — Sp. 6602, 6658, 6662, 6673, 7537 — Tub. 8909.

8356, 8446.

8922.

Liriodendron - Py. 4218 - D. 5576

Lithræa - Py. 3462, 3463, 4207, 4527,

Sp. 6696, 6843 — Mel. 7712 — Tub.

Laurelia — Sp. 6984. Laurus — Py. 3816, 4075 — Sp. 6692 7629 — Mel. 7818 — Mu. 7901 — Tub. 8920. Lavatera — Mu. 8185. Lebia — La. 3352, 3354. Lecanium - Py. 5058 - D. 5914, 5979 — Sp. 7518 — St. 8717, 8720. Lecanora — Sp. 6828 — De. 8322. Lecidea — Py. 3857. Leea - Py. 4721. Leguminosæ - Py. 3564, 4217, 4785 — Sp. 6661 — Mu. 7943 — Tub. 8846. Lemanea - Py. 4007. Leonurus — Sp. 6380 — Mu. 7918. Leotia - Py. 4964. Lepidium - Py. 4219 - Sp. 6320, 6951, 7044, 7219. Lepidoptera — Py. 5028 — St. 8716, 8740. Lepidosperma — Py. 3997. Leptobryum — D. 5413. Leptochirus — La. 8330, 3335. Leptochloa - Py. 4326. Leptodactylon - Sp. 6875. Lepus — Mu. 8175. Lespedeza - Py. 4892. Lesquerella — Sp. 6743. Leucobryum — Myc. st. 8949. Leucojum — Sp. 7395. Libanotis - Mu. 8201. Libertia — Sp. 6439 — De. 8453.

Licania — Py. 5098.

Limacinula — Py. 3451.

Limonia — Mel. 7793.

Limosella — D. 5987.

Limosina — La. 3343.

— Mel. 7794.

7285, 7256.

8230.

Lichenes — Py. 3919 — Myb. 6085-

Ligustrum — Sp. 6420, 6557 — Mu.

Linum — Py. 3530 — Sp. 7178, 7490

6087, 6094, 6097 — Mu. 8057 —

De. 8323 — St. 8776 — Tub. 8886.

4608, 4621, 4646, 5231 — Sp. 6935 - Mel. 7819 - De. 8603 - Tub. 8925. Litsea — Py. 4739, 4740 — Sp. 7519. Livistona — Py. 4397 — Sp. 6524. Lloydia — Py. 3793 — Sp. 6631. Lobelia - Py. 3768, 3844, 4091, 4386, 4630, 4632, 4694, 4911 — D. 5277, 5541, 5783, 5846 — Sp. 6220, 6378, 7071, 7509, 7530 — Mu. 8139 — De. 8484, 8485, 8649 — Tub. 8896. Locusta - Mu. 7956. Loganiace - Myc. st. 8929. Lolium - Tub. 8878. Lomatia — Py. 4083 — Sp. 6424, 6463. Lonicera - Py. 4090, 4145, 4385, 4631 D. 5748, 5798 — My. 6028 — Sp. 6902, 7154, 7181 — Mu. 8206. Lophanthus - Sp. 6379. Loranthaceæ — Py. 5152. Loranthus — Sp. 6715, 6716, 6881, 7379, 7569. Lotus — D. 5804 — Mu. 8191 — De. 8629. Lucuma - Tub. 8928. Luhea — Py. 4146, 4553. Lunularia - Py. 3819 - Sp. 6610. Lupinus — Mel. 7874 — Mu. 8187. Luzula - Py. 5261 - Sp. 6895. Lychnis — D. 5512 — Sp. 7030. Lycium — Py. 3904, 4303 — Sp. 6307, 6711, 7236 — De. 8555. Lycopersicum — Sp. 7068 — Tub. 8913. Lycopodium — My. 6039 — Sp. 6589, 6738. Lycopus — D. 5569 — Sp. 6852 — Mu. 8232. Lygeum - Py. 4126. Lymnanthemum — Sp. 7271. Lynosyris — Sp. 7342. Lysimachia — Py. 3753 — Mu. 8285. Lippia - D. 5790 - Sp. 6194, 6384, Lythrum — Py. 4082 — De. 8384.

Maba — Sp. 7017. Macaranga — Py. 4747 — Sp. 6683. Macfadyena — Sp. 7547. Machilus - My. 6063. Maclura — Py. 4146, 4553, 4639 — D. 5485. Macropsis - D. 5913. Macrotonia — De. 8482. Magnolia — Py. 3536 — Sp. 6113, 6465, 6742, 6801. Mahonia — Sp. 7045, 7154. Majanthemum — De. 8489 Malabaila — Sp. 6300, 7320. Mallotus - Py. 4712. Malus — D. 5471 — Mel. 7716. Malva — D. 5778 — Sp. 6970, 7502. Malvaceæ — Py. 5154. Mangifera — Py. 3464, 4566, 5034, 5259 - Sp. 6851, 6943, 7157 - Mel. 7828 — De. 8604. Manihot — Py. 3423, 4916, 5004 — Sp. 6146 — Mu. 7946 — De. 8635, 8636. Maranta - Sp. 6942. Marantaceæ — Py. 3409, 5035 — D. 5798 Marrubium — Py. 4218 — Sp. 6381. Martynia — Sp. 6473 — Tub. 8823. Massaria — Py. 4796, 4992 — Sp. 6670. Matricaria - Sp. 7351. Maxillaria — Py. 3853 — Mel. 7638. Maytenus — Py. 4824, 5074. Medicago — Py. 4202 — Sp. 6638 — Mel. 7743 — Tub. 8830 — Myc. st. 8948. Medinilla - Py. 3444. Megatolælaps — La. 3329. Melampyrum — Sp. 6393, 7366. Melandrium — D. 5641 — Sp. 7284, 7285. Melanomma — Py. 4909. Melastoma - Py. 4725, 4811. Melastomaceæ — Py. 3578, 4724, 5029, 5045, 5143 — Sp. 6498. Melia — Sp. 6327 — Mel. 7645 — De. 8608. Melica — Py. 4769 — Sp. 7100, 7202.

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Melicocca - Py. 3457. Melilotus — Py. 3839, 4615 — Sp. 6966 \_ Tub. 8918. Meliola — Py. 3405, 3406, 3428, 3438, 3452, 3493, 4330, 4910, 4995 — Sp. 6535 — Mu. 8085 — St. 8770 — Tub. 8924. Melissa — Sp. 6191 — Mel. 7869. Melittis - Sp. 6192. Melolontha — Mu. 8099 — De. 8416. Menispermaceæ - Mel. 7641. Menispermum - Py. 4623. Menodora - Py. 4245. Menopus — La. 3374. Mentha — Py. 4088, 4089, 4895, 4935 - Sp. 6382, 7458. Mentzelia — Sp. 6332. Menyanthes — Mu. 8236. Mercurialis — Sp. 6959, 7382. Merostachys — Sp. 7522 — St. 8773. Mespilus — Py. 3815 — D. 5448 — Sp. 6164, 6810, 6861, 6862. Miconia — D. 5805, 5822. Microcyclus - Mu. 8247. Mikania — Py. 4096. Milium — Sp. 6453. Milletia — Py. 3566, 4659, 4732 — Sp. 6157. Miltonia — Sp. 6525. Mimosa — Py. 4664, 4867 — Sp. 6814 — Mel. 7820 — De. 8477, 8690. Mimusops — Py. 3577. Miscanthus — Tub. 8798. Modecca - Sp. 6945. Mæhringia — Mu. 7918. Mœlleriella - Py. 4319. Mogiphanes - Mu. 8262. Molinia — Py. 3597 — D. 5557. Monocotyledones — Py. 4171, 4708 — Mu. 8123. Monotropa — Sp. 7545. Monstera - Py. 4941. Montagnites - Py. 4282. Monttea — Py. 3924, 4302 — Sp. 6395, 7215. Moriera — Py. 3710. Morinda - Py. 3571. 96

Morus — Py, 3388 - Sp. 6253, 6254, 6933 — Mel. 7855, 7858 — De. 8390 - St. 8758 - Tub. 8868. Moya — Py. 3469, 5120. Mucedinaceæ — De. 8389. Mucuma — Py. 3407. Muehlenbeckia - D. 5663 - Mel. 7681. Mulinus - Py. 4805 - Sp. 6815. Murraya — Py. 4541, 4718 — St. 8718. Mus - Mu. 8077, 8278. Musa — Py. 3512, 3543, 3795, 4115, 4642, 4809, 4846, 4860, 4931, 4932, 5017 — D. 5492, 5787 — Sp. 6437, 6551 — Mel. 7637, 7695 — Mu. 7914, 7960, 8036 — De. 8295, 8522 — Tub. 8814. Musca — La. 3344, 3345 — De. 5894. Muscari - Py. 3792, 4119 - D. 5772 \_ Sp. 6449, 6787, 7396. Musci — Py. 5054 — D. 5343, 5345, 5347, 5610 - My. 5995, 6002, 6003, 6017, 6019, 6024, 6057, 6061 — Sp. 6455 — Mu. 8134 — De. 8379. Mutisia — Py. 3762 — Sp. 7354. Mycenastrum — Py. 4280 — Sp. 6456, 7106.Myginda - Sp. 6501. Myriangium - Py. 4050. Myrianthus - Py. 5086. Myrica — Py. 4532, 4800 — D. 5829 — Sp. 6712, 6713 - Mel. 7840. Myricaria — D. 5719 — Sp. 6343. Myrrhinium - Py. 4730, 5076. Myrsine — Py. 3728, 5090, 5220 — Sp. 6619. Myrtaceæ - Py. 3468, 3502, 3503, 3863, 4356, 4726, 4727, 5037, 5077, 5107, 5126, 5147-5150, 5163, 5191 — D. 5653, 5796 — Sp. 7529, 7540 — De. 8621 — Myc. st. 8931. Myrtus - Py. 3729, 4530 - Sp. 6301, 6495, 7529 — De. 8525. Mytilaspis — D. 5726. Narcissus — Sp. 7137 — Mu. 8245 —

Myc. st. 8989.

Nardus — Py. 3637 — D. 5536.

Narthecium - Py. 3784. Nectandra — Py. 4741, 4986 — D. 5810 Sp. 6824. Neleus — Py. 5062. Neottia — Py. 4271 — Sp. 6438. Neowashingtonia - Py 4791. Nepeta — Sp. 7335, 7336. Nephelium - Sp. 6134. Nephromium - Py. 4008. Nerium — Py. 3510, 4584, 4649 — Sp. 6412 — Mel. 7674 — Tub. 8822. Neuropogon — Py. 4008. Nicotiana — Py. 3770 — Sp. 6213, 6389 - Mu. 7964 - Tub. 8864. Nigella — De. 8599. Nipa — Py. 4200, 4396. Nonnea — D. 5893. Nothofagus — Py. 3386, 3387, 3781 — D. 5573, 5874 — Sp. 6582, 6919. Nyctalis — De. 8392. Nyctobora — La. 3341. Nyssa - D. 5470. Obione — Sp. 6781, 7091, 7250. Ocotea — Sp. 6658 — Mel. 7776. Ocymum — D. 5454 — Mu. 8086. Odina — Sp. 6118. Odontia — Py. 3682. Enothera — Py. 4079 — Sp. 6909, 7167. Oidium — Sp. 6585\*, 6586, 6587. Olea — Py. 3509, 4146, 4216, 4353, 4676 - D. 5789 - Sp. 6210, 6707, 7186 — Mel. 7634, 7868. Oleum — D. 5992. Oncidium - Py. 3829, 4383 - Sp. 6786, 7198 — De. 8461 Oncosperma — St. 8767, 8768, 8769. Onobrychis - Py. 3736 - Sp. 6867, 6964, 7435. Onoclea — D. 5878. Ononis — Sp. 6351 — De. 8524. Onosma — Py. 4248 — Sp. 6386. Oospora - Py. 3696. Opegrapha — Py. 3895. Ophiorrhiza — Py. 3529. Oplismenus — Py. 4778. Opoponax — Sp. 6186 — Mel. 7866.

Opuntia — Py. 3648, 4229 — Sp. 6141, 7109, 7122, 7160 — De. 8478. Orchidaceæ - Py. 4989, 5046 - Sp. 6264 — Mel. 7760 — Mu. 7957, 8122, 8123 — Tub. 8872 — Myc. st. 8950-8952. Orchis — Sp. 7023. Oreodaphne - Py. 3569. Ornithogalum — Sp. 7391. Orobanche — Sp. 6575, 7462. Orobus — Mel. 7658, 7863, 7884. Oroxylon - Sp. 6776. Orthotrichum - D. 5667 - Sp. 7512. Oryza - Py. 3799-3801, 3854, 3974, 4054, 4128, 4173, 4205, 4366, 4398 — Sp. 6285, 6286, 6451, 6452, 6579, 6609, 6623, 6788-6790, 6823, 6896, 6931, 7205, 7414-7416, 7422, 7619 — Mu. 8118 — De. 8414, 8516, 8681 — Tub. 8901, 8908 — Myc. st. 8940. Oryzopsis — Sp. 7413. Osmunda — Py. 3809 — Mel. 7889. Ostrya — Py. 4020, 4308, 4610 — Sp. 6722, 6883. Osyris - Pv. 3626, 4247 - Sp. 6422. 6480, 7187. — Mel. 7850. Ova — Mu. 7902. Oxalis — Py. 3961 — Sp. 6326. Oxytropis - Sp. 6153.

Ozæna — La. 3357. Pachylælaps — La. 3327, 3339. Pæonia — Sp. 6312, 6566, 7042, 7533, 7534 — Mu. 8087, 8176. Palaquium - Py. 4178.

Palea — Py. 3410, 3688 — Mu. 8022, 8032, 8050.

Palmæ - Py. 3657, 3797, 3925, 4023, 4038, 4831, 4976, 4988, 5039, 5208 - D. 5675.

Panicum — Py. 4774-4776, 4819, 4905, 5072 — Sp. 6613, 7110, 7407, 7408 - Mel. 7764 - Mu. 8098, 8145 — De. 8400, 8510, 8562, — Tub.

Pandanus — Py. 5225 — Sp. 6822, 6894, 6947 — Tub. 8825.

Panis — D. 5885 — Mu. 7988, 7991, 7999, 8000. Pantacantha — Py. 3769. Paratropia - Pv. 3471, 3472, 5078, 5111, 5130 — D. 5280, 5281 — Sp. 6180, 7599. Parietaria — Sp. 7383 — Mu. 8241 \* Parilla - Mel. 7649. Parinarius — Mel. 7822. Paris - D. 5463. Parkia — Pv. 4783. Parmelia — D. 5815, 5816, 5817 — Sp. 6794. Pasania — Py. 3434 — D. 5875. Paspalum — Py. 3973, 4275, 4777, 4780, 5048, 5049, 5053, 5176 — Sp. 7203 — Tub. 8879. Passiflora — Pv. 3402, 3841 — Mu. 7897 — De. 8602.

Patagonium - Py. 3649, 5180, 5256 — D. 5587.

Patagonula - Py. 4948. Paulownia — Mel. 7665, 7892. Paxia Py. 5106. Paxillus — Mu. 7963, 8027. Pedicularis - Sp. 6394. Pediculus — La. 3374. Peganum - Py. 3531. Pelargonium — Py. 4061. Peltigera — Py. 4029, 4827 — D. 5813.

Pemphigus — Mu. 7906. Peniophora Py. 3683. Pentatoma — St 8715.

Perezia - Py. 3764. Periploca — Sp. 6986, 7084, 7188, 7876. Persea — Py. 3537, 3619, 3640, 3644, 3651, 3870, 3983, 4074, 4327, 4421, 4573, 5079, 5168, 5207 — D. 5568, 5662, 5763, 5809 — Sp. 6339, 6847, 7166 — De. 8382.

Persica — Py. 4175, 4583 — D. 5986 - Sp. 6169, 6365, 6699, 6751, 6838, 7113, 7227, 7442. Pertusaria — D. 5861 — Tub. 8903.

Petasites — D. 5893 — Mu. 8213, 8214. Petiveria — Sp. 6637.

Petroselinum — De. 8643.

Peucedanum - Sp. 6188, 7316, 7317 - Mu. 8202 - De. 8433, 8641. Phaca — Py. 4836. Phajus — Py. 4270 — Mel. 7703. Phalaris — D. 5466, 5498 — Sp. 7409. Pharbites - Py. 3477. Pharus — Sp. 6288. Phaseolus — Py. 3564 — Sp. 7304 — Mel. 7660 — Mu. 8188 — De. 8689. Phasianus — D. 5749 — Sp. 6462. Phegopteris - Py. 5087. Phellodendron — Sp. 6854, 6963. Philadelphus — D. 5586. Philibertia — De. 8528. Phillyrea — Sp. 6209, 6915. Philodendron — Sp. 6279, 6561 — St. 8702 — Tub. 8906. Phleum — Sp. 6792, 7412 — Mel. 7768. Phlomis — Sp. 6734, 7234. Phlox — Py. 4243, 4387 — Sp. 6603, 6979, 7331. Phœbe — Sp. 7520. Phoenix — Py. 3631, 3926 — Sp. 6486, 6821, 6884, 7485 — Mel. 7790 — Mu. 8126 — De. 8318 — Tub. 8819. Phoma — De. 8563. Phoradendrum — Sp. 6509. Phormium - Py. 3614 - Mel. 7880. Photinia - Py. 3466 3539 - Sp. 6811, 7124.Phragmites — Py. 3490, 4001, 4035, 4127, 4206, 4273 — D. 5465, 5676 — Sp. 7141, 7144, 7217, 7593 — De. 8701 — Tub. 8884. Phyllactis — Mu. 8111. Phyllanthus — Py. 4749. Phyllocactus — Sp. 6505. Phyllodoce — Sp. 7073. Phyllodromia — La. 3339. Phyllostachys — Py. 4856 — Sp. 7206, 7252 — De. 8303. Physalis — Sp. 6388, 6636, 7070 — De. 8691. Physcia — Mu. 8056. Physochermes — D. 5977. Physostegia — Py. 4087.

Phytolacca — Py. 3534, 4556 — Sp. 6779 - Mu. 8239 - Tub. 8914. Pimpinella — Sp. 7066, 7178, 7315 — Mu. 8200 - De. 8644. Pinanga — Py. 4547, 5038. Pinus — Py. 3523, 3525, 3679, 3808, 3871, 4185, 4887, 4889-4842, 4845. 4346, 4351, 4354, 4373, 4897, 5002. 5013, 5198 — D. 5332, 5407, 5412, 5491, 5530, 5559, 5582, 5607, 5617, 5618, 5665, 5680, 5698, 5700, 5714, 5731, 5786, 5833, 5835, 5843, 5886, 5887, 5889 — My. 6002, 6062 — Sp. 6433, 6675, 6694, 6724, 6819, 6929, 7134, 7191, 7523, 7592, 7605, 7606, 7628, 7632 — Mel. 7803, 7842, - Mu. 7938, 8007 - De. 8315. 8316, 8339, 8356, 8375, 8417, 8446, 8449, 8521, 8533 — St. 8729, 8749, 8750 — Tub. 8806, 8810, 8818, 8827, 8835, 8895. Piper — Mu. 8241. Piptatherum - Py. 5262. Pircunia — Py. 4139, 4705 — Sp. 7507. — De. 8667 — Tub. 8865, 8914. Piriqueta — Sp. 6676. Pirola - Sp. 6413. Pirus — Py. 3454, 3663, 3815, 3823, 3940, 3963, 3964, 4297, 4522, 4523, 4529, 4678, 4830, 5264 — D. 5585, 5756, 5769, 5870, 5881 — Sp. 6536. 6649, 6650, 6655, 6679, 6749, 6863 - Mel. 7651, 7716, 7741, 7779, 7780, 7864 — Mu. 7896, 8094 — De. 8341, 8569 — Tub. 8857, 8904. Pistacia — Py. 4662 — Sp. 6117. Pistia — Mu. 8097. Pisum — De. 8497 — Tub. 8847, 8861 Myc. st. 8936, 8948. Pithecoctenium — Py. 4984. Pithecolobium — Py. 3862, 4802 — Mel. 7659, 7809. Pituranthus — Sp. 6511. Placodium - Py. 3920. Placopsis — Py. 3918. Plantago — Py. 3757, 3817, 3967, 4241 - Mel. 7724.

Platanus — Sp. 6428, 6857 — Mel. 7758. Platyzosteria — La. 8338.

Pleuropogon — Py. 3972.

Plumbago - D. 5305.

Poa — Py. 3528, 8915, 4209, 4277, 4278, 4820, 5258 — D. 5608, 5637, 5638 — Sp. 6289, 7007, 7008 — Mel. 7765, 7766, 7768 — De. 8374.

Podocarpus — Py. 5064, 5065, 5234 — Sp. 7390.

Podospermum — Mu. 8258.

Polemonium — Mel. 7676.

Polistes — Mu. 7931 — St. 8723.

Pollinia - Mu. 8115.

Polycodon — D. 5452 — Mu. 7923.

Polygala — Sp. 7056, 7168, 7272, 7427-7429 — Mu. 8181.

Polygonatum — Sp. 6520, 7393 — De. 8489, 8679.

Polygonum — Py. 3851, 4650 — Sp. 6780, 6879, 6995, 7088.

Polylepis - Sp. 7506.

Polypodium — D. 5564 — Sp. 6292.

Polypogon - Sp. 7402.

Polyporus — Py. 4040, 4041, 4042, 4818, 4925, 4956, 4961, 4975 — D. 5507, 5788 — My. 6067 — Mu. 8002 — St. 8708.

Polystichum — Py. 4963.

Polystictus — Sp. 7514. Polytrichum — D. 5678.

Pongamia — Py. 4734.

Populus — Py. 3585, 3646, 3874, 4052, 4105, 4168, 4609, 4611, 4986 — D. 5365, 5486, 5514, 5528, 5864 — Sp. 6429, 6430, 6484, 6997, 7261, 7388, 7389, 7483, 7557, 7627 — Mel. 7726, 7887 — Mu. 8152 — De. 8438, 8548, 8698.

Poria — Py. 4350 — Mu. 8143. Potentilla — Py. 3499, 4363 — Sp.

7298 — Mu. 7918.

Pothos — Mel. 7761.

Pouteria — Mel. 7666. Prangos — Sp. 6373.

Prasiola — Py. 3545.

Premna — Py. 5033.

Prenanthes — Py. 4652 — Mu. 8225 — De 8662.

Primula — Mu. 8287 — De. 8478.

Prosopis — Py. 3383, 4592, 5172 — D. 5780, 5854 — Sp. 6195, 6905, 7009 — Mel. 7708.

Protea - Py. 3892.

Proustia — Py. 8765, 8766, 8878, 4049, 4167, 4251, 4805, 4571, 4686, 4698, 4708, 5288 — Sp. 6222, 6228, 7188.

Prunella — Sp. 7178.

Prunus — Py. 3885, 3981, 4879, 4598, 5109, 5184, 5161, 5245 — D. 5448-5445, 5450, 5451, 5545, 5708, 5774, 5803, 5826, 5871, 5877 — Sp. 6165-6167, 6170, 6634, 6680, 6700, 6968, 7259, 7294, 7539 — Mel. 7635, 7653-7655, 7714, 7715, 7891 — Mu. 7922, 7966 — De. 8376, 8415, 8481, 8590.

Psamma - Tub. 8874.

Pseudotrophis - Py. 5156.

Psidium — Py. 3507, 5125, 5146 — D. 5647.

Psilotus — Py. 4965.

Psophocarpus — Py. 5122.

Psoralea — Py. 4218 — Sp 6467, 7434.

Psychotria — Py. 3478, 3479 — Sp. 7546.

Psylla — D. 5958, 5978.

Psyllidæ — D. 5955.

Ptelea — Py. 4821 — Sp. 6124, 6824, 6698, 6757, 6856, 7046, 7047, 7154, 7226.

Pteridium — D. 5673 — Sp. 7418 — De. 8306.

Pterocarpus — Py. 3384.

Pterocarya — Sp. 6432.

Ptyelus - D. 5948, 5954.

Puccinia — Tub. 8795.

Pulsatilla — Sp. 6314 — Mu. 8179.

Pulvinaria — D. 5914.

Punica — Sp. 6731 — Mu. 8086 — De. 8620.

Puya — Py. 3420, 3634, 3635, 3641, 3785, 3827, 3916, 3992, 4263, 4264

- D. 5609 - Sp. 6441, 6469, 6595 - De. 8518.

Pyrenomycetes — Py. 4907, 4908, 4986.

Quedius - St. 8722.

Querous — Py. 3380, 3510, 3523, 3540, 3818, 3875, 3948, 3951, 4018, 4019, 4148, 4307, 4315, 4344, 4451, 4470, 4598, 4677, 4689, 4898, 4966, 5010, 5012, 5089, 5249 — D. 5346, 5457, 5489, 5528, 5549, 5550, 5581, 5633, 5644, 5687, 5722, 5789, 5757, 5785 — My. 6056 — Sp. 6255-6257, 6519, 6548, 6621, 6689, 6718, 6740, 6788, 7387, 7498, 7556, 7575, 7600, 7625, 7628, 7631 — Mel. 7691 7720, 7772, 7785, 7888 — Mu. 7917, 7944, 8068, 8132 — De. 8342, 8363, 8397, 8412, 8426, 8504 — St. 8726.

Radulum — Py. 4955.
Ragonycha — De. 8424.
Randia — Py. 4748 — St. 8770.
Ranunculus — Py. 4058, 4059 — D. 5509, 5510 — Sp. 6315-6317, 6493, 6632, 6948, 7041, 7423 — Mu. 8177, 8178 — De. 8474.
Ragonyca — Py. 5066 — Sp. 6196

Rapanea — Py. 5066 — Sp. 6196.

Rapistrum — Mu. 8252.

Rhacoma — Sp. 6501.

Rhacomitrium — D. 5477.

Rhagadiolus - De. 8663.

Rhamnus — Py. 3725, 4282, 4812 — D. 5573, 5721 — Sp. 6763, 6764, 7212. Rheum — Myc. st. 8936.

Rhododendron — Py. 3581, 3584, 3946, 4025, 4525, 4837, 4999, 5214 — D. 5537, 5670 — Sp. 6206, 6664, 6778, 7588, 7589 — De. 8542, 8642.

Rhodotypus — Sp. 6864, 7059, 7228, 7300.

Rhopographus - D. 5710.

Rhus — Py. 3715, 5132 — D. 5543,
5721, 5779, 5894 — Sp. 6545, 7053,
7116, 7262 — Mel. 7713 — De. 8404,
8539.

Rhynchospora — Py. 3489.

Rhypsalis — Py. 4823 — Mel. 7730. Rhytisma — Tub. 8794.

Ribes — Py. 8867, 8901, 4869, 4602 — D. 5802, 5892-5894, 5905 — My. 6028 — Sp. 6185-6187, 6802, 6838, 6745, 7298 — Mel. 7649, 7740, 7862 — De. 8588.

Ricasolia - Py. 4890.

Riccia - D. 5505.

Ricinus — Py. 3395, 3775, 4081, 4553, 4555, 4628, 4695 — Sp. 6347, 7531 — Mel. 7680 — De. 8685.

Rivina — Sp. 6240, 7380 — Mel. 7836 — De. 8411.

Robinia — Py. 3980, 3981, 4067, 4068, 4193, 4236, 4296 — Sp. 6160, 6161, 6468, 6600, 6678, 6906, 7014, 7062, 7114, 7608, 7615, 7628 — Tub. 8855.

Rosa — Py. 3381, 3522, 3965, 4324 — D. 5615 — Sp. 6358, 6496, 7296, 7565 — Mel. 7876 — De. 8291, 8563.

Rosellinia - Tub. 8898.

Rottbællia — Py. 4834.

Rubia — Sp. 6977.

Rubiaceæ — Py. 3436, 3678, 4508, 4513. Rubus — Py. 3408, 3639, 3897, 3975, 3976, 4361, 4372, 4656, 4983, 5132, 5201 — D. 5894 — My. 6028, 6027 — Sp. 6311, 6359-6362, 6544, 6563, 6633, 6748, 6832, 6938, 6967, 7073, 7297, 7439, 7538 — Mu. 8107 — Tub. 8778.

Rudbeckia - De. 8661.

Rumex — Py. 4651, 5175 — D. 5484 — Sp. 6817 — Mu. 8119, 8240.

Ruseus — Py. 4118 — Sp. 6831, 6891 — Tub. 8787, 8831.

Russelia — Sp. 6396.

Rutaceæ — Py. 4718.

Sabal — Sp. 6263.

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